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Tayne S. Y. Sekimura
Financial Vice President

May 30, 2007

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PUBLIC UTILITIES COMMISSION

The Honorable Chairman and Members of
The Hawaii Public Utilities Commission
465 South King Street
Kekauanaoa Building 1st Floor
Honolulu, Hawaii 96813

Dear Commissioners:

Docket No. 2006-0386 - HECO 2007 Test Year Rate Case
Pension Funding Study

Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc., and Maui Electric Company, Limited ("HECO", "HELCO", and "MECO", respectively, or collectively referred to as "the Companies") provide pension benefits to certain of their current and former employees by participating in the Retirement Plan for Employees of Hawaiian Electric Industries, Inc. and Participating Subsidiaries ("Pension Plan"), a qualified defined benefit pension plan. In Docket No. 05-0310, "For Approval to Record a Regulatory Asset for Any Pension Liability Which Would Otherwise be Charged to Accumulated Other Comprehensive Income" ("AOCI Docket"), the Companies proposed to do a study of what pension funding level is appropriate. Decision and Order No. 23223 dated January 26, 2007 in Docket No. 05-0310 required the Companies to file a pension study in Docket No. 2006-0386, HECO's 2007 test year rate case, by May 31, 2007. In compliance therewith, enclosed for filing are the following:

1. The Companies' Pension Funding Policy Explanation (Attachment 1).
2. Pension Funding Study conducted by Watson Wyatt Worldwide – This study summarizes complex funding rules, discusses funding alternatives, and evaluates the impact of various funding alternatives on stakeholders (Attachment 2).
3. Supplemental Supporting Documentation for the Pension Funding Study – This includes the revenue requirement calculations prepared by the Companies and used by Watson Wyatt Worldwide in the Pension Funding Study and additional illustrations for pension tracking mechanism implementation at HECO which smoothes the impact on ratepayers while maintaining the basic pension tracking mechanism design which was implemented at HELCO (Attachment 3).

The Honorable Chairman and Members of
The Hawaii Public Utilities Commission
May 30, 2007
Page Two

The Company offers to provide a briefing on this filing for the Commission and the other parties in Docket No. 2006-0386 and will contact the Commission staff at a later date on whether the Commission desires such a briefing.

If you have any questions of this matter, please contact Dean Matsuura at 543-4622.

Sincerely,

cc: Division of Consumer Advocacy
Department of Defense

Hawaiian Electric Company, Inc.
Hawaii Electric Light Company, Inc.
Maui Electric Company, Ltd.

Pension Funding Policy Explanation

Background

Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc., and Maui Electric Company, Limited ("HECO", "HELCO", and "MECO", respectively, or collectively referred to as "the Companies") provide pension benefits to certain of their current and former employees by participating in the Retirement Plan for Employees of Hawaiian Electric Industries, Inc. and Participating Subsidiaries ("Pension Plan"), a qualified defined benefit pension plan, under the provisions of the Employee Retirement Income Security Act ("ERISA").

The issue of whether the pension funding level is appropriate was raised in the Companies' application for regulatory asset treatment of pension amounts which would otherwise be charged to accumulated other comprehensive income in Docket No. 05-0310 ("AOCI docket"). Additionally, the question of whether the Companies should be allowed to include the net pension balance sheet amounts in rate base has been raised in recent rate cases. The amounts contributed to the pension fund impact the net pension balance sheet amounts. In the AOCI docket, the Public Utilities Commission directed the Companies to submit a pension funding study in the HECO 2007 test year rate case (Docket No. 2006-0386).

Pension Funding Analysis

The Companies retained Watson Wyatt Worldwide ("Watson Wyatt") to conduct a pension funding study. The purpose of the study was to summarize complex funding rules, present funding alternatives, and evaluate the impact on ratepayers of various funding alternatives.

After considering recent changes in pension funding law and financial reporting standards, the two pension funding policies considered were:

1. Minimum Required Contribution ("MRC") under the Pension Protection Act ("PPA")
2. Net Periodic Pension Cost ("NPPC") under Statement of Financial Accounting Standards No. 87, "Employers' Accounting for Pensions" ("FAS87") - (In this scenario, there is a restriction that the MRC be funded as necessary, but by funding ahead of schedule a credit will be established to offset future funding requirements.)

Watson Wyatt considered the impact of the two pension funding policies on various stakeholders including: plan participants, the Companies, ratepayers, regulatory agencies and shareholders. Watson Wyatt concluded that either funding policy alternative, MRC or NPPC, would serve as a reasonable funding policy. Both alternatives balance the needs and concerns of all stakeholders; both provide adequate benefit security, financial flexibility, stable contribution and expense amounts, and reasonable revenue requirement levels.

Pension Tracking Mechanism

The Division of Consumer Advocacy ("Consumer Advocate") proposed a pension tracking mechanism in HELCO's 2006 test year rate case (Docket No. 05-0315) and has indicated that it will propose that a substantially similar pension tracking mechanism be implemented by HELCO's affiliates. HELCO agreed to the implementation of the pension tracking mechanism and the Commission approved the pension tracking mechanism in Interim Decision and Order No. 23342 dated April 4, 2007 in Docket No. 05-0315.

The pension tracking mechanism was designed by the Consumer Advocate to ensure that, over time, the utility collects pension costs from ratepayers in an amount equal to the pension cost recognized for financial reporting purposes (i.e., NPPC) and that the utility funds the amount of NPPC to the pension trust. To the extent NPPC during a given period between rate cases exceeds or falls short of the level of NPPC embedded in rates, any such over or under recovery of NPPC will be tracked and deferred for future recovery from or returned to ratepayers. The mechanism also generally requires HELCO to make fund contributions equal to the actual NPPC annually.

Pension Funding Policy

The Companies have considered the guidance provided by Watson Wyatt and the requirements of the pension tracking mechanism implemented at HELCO and conclude that the following pension funding policy is reasonable:

> Contribute at least the net periodic pension cost as calculated using FAS 87 during the fiscal year, subject to statutory funding limits and targeted funded status as determined in consultation with the actuary[1]. Contributions will not be less than the ERISA minimum funding requirements and will not exceed the maximum tax deductible amount on an accrual basis.

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[1] When no pension tracking mechanism has been approved by the PUC and when the cumulative contributions exceed the cumulative pension costs recognized for financial statement purposes, the Companies may limit contributions to the pension fund. When a pension tracking mechanism has been approved by the PUC, funding of the pension fund will be in accordance with the pension tracking mechanism requirements.

Specifically, the pension tracking mechanism adopted by the PUC for HELCO requires the following:

Except when limited by the ERISA minimum contributions requirements or the maximum contribution imposed by the Internal Revenue Code, or the contribution exceeds the net periodic pension cost ("NPPC") for a reason provided in the following sentence, the annual contribution to the pension trust fund will be equal to the amount of Statement of Financial Accounting Standards No. 87 ("FAS 87") NPPC. The utility will be allowed to recover through rates the amount of any contributions to the pension trust in excess of the FAS 87 NPPC that were made for the following reasons:

- the minimum required contribution is greater than the FAS 87 NPPC,
- the increased contribution was made to avoid a significant increase in Pension Benefit Guaranty Corporation ("PBGC") variable premiums,
- the increased contribution was made to avoid a charge to other comprehensive income, or
- the increased contribution was made to avoid: (i) higher minimum contribution requirements under the Pension Protection Act, or (ii) other adverse funding requirements under federal pension regulations (provided funding does not exceed 100% of the projected benefit obligation as a result).

Watson Wyatt
Worldwide

May 25, 2007

Ms. Tayne Sekimura
Financial Vice President
Hawaiian Electric Company, Inc.
P. O. Box 2750
Honolulu, Hawaii 96840-0001

Re: Pension Funding Policy Study

Dear Tayne:

Attached is a study prepared at the request of Hawaiian Electric Company, Inc. to assist in establishing a funding policy for pension benefits under the Retirement Plan for Employees of Hawaiian Electric Industries, Inc. (HEI) and Participating Subsidiaries. Results and information from this study may not be applicable for other purposes.

In preparing this information we have relied upon information and data provided to us by HECO and other persons or organizations designated by HECO. The participant data used for this study is the same data as used for the January 1, 2007 actuarial valuation. An audit of the financial and participant data provided was not performed, but we have checked the data for reasonableness as appropriate based on the purpose of the study.

We have relied on all information provided, including plan provisions and asset information as complete and accurate. HECO used our projection information to develop revenue requirements which we in turn used as a component for comparison between funding policies.

The information summarized in this study involves actuarial calculations that require assumptions about future events. We believe that the assumptions and methods used in this study are reasonable and appropriate for the purposes for which they have been used.

Actuarial calculations are inherently imprecise; actual future experience will differ from the assumptions used in the calculations. A range of results different from those presented on this report could be considered reasonable.

The undersigned consultants of Watson Wyatt Worldwide with actuarial credentials meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. There is no relationship between HECO and Watson Wyatt Worldwide that impacts our objectivity.

Ms. Tayne Sekimura
May 25, 2007
Page 2

We would be pleased to review the study with the Pension Investment Committee and other interested members of management and answer any questions you may have.

Sincerely,

Douglas Lum
Consultant

Leonard Smothermon, A.S.A.
Consulting Actuary

Kay Hardy

Kay Hardy, E.A.
Consultant

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Attachment

Retirement Plan for Employees of Hawaiian Electric Industries, Inc. and Participating Subsidiaries

Funding Policy Study

Hawaiian Electric Company, Inc.

Hawaii Electric Light Company, Inc.

Maui Electric Company, Ltd.

May, 2007

Prepared by:

Watson Wyatt
Worldwide

Study Purpose

Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc., and Maui Electric Company, Ltd. (HECO, HELCO and MECO respectively or collectively referred to as the Companies) provide pension benefits to certain of their current and former employees by participating in the Retirement Plan for Employees of Hawaiian Electric Industries, Inc. and Participating Subsidiaries (Pension Plan), a qualified pension plan under the provisions of the Employee Retirement Income Security Act of 1974 (ERISA). The issue of whether the pension funding level is appropriate was raised in the Companies' application for regulatory asset treatment of pension amounts which would otherwise be charged to accumulated other comprehensive income in Docket No. 05-0310 ("AOCI application"). Additionally, the question of whether the Companies should be allowed to include the net pension balance sheet amounts in rate base has been raised in recent rate cases.

The amounts contributed to the pension fund impact the net pension balance sheet amounts. In the AOCI application, the Companies proposed to submit a pension funding study in the current HECO rate case (Docket No. 2006-0386). In Decision and Order No. 23223 in Docket No. 05-0310, the Commission required the Companies to file a pension funding study in Docket No. 2006-0386, HECO's 2007 test year rate case, by May 31, 2007. The purpose of this study is to outline the objective of the Pension Plan, summarize the complex funding rules, present funding alternatives for consideration, and evaluate the impact on ratepayers of various funding alternatives for the utility portion of the Pension Plan.

Pension Plan

The pension plan was developed as part of an overall compensation package to attract and retain employees by providing financial security during the employees' retirement years. The ultimate cost of a pension plan is the benefits paid to participants plus expenses less investment earnings on contributions made to fund those benefit payments.

Stakeholders

The Companies are proposing a pension funding policy designed to maintain an optimal funding level which will best meet the needs of all stakeholders: plan participants, Companies and shareholders, ratepayers, and regulatory agencies.

Participants look to the Plan to provide a dependable level of income after they retire from service to the Companies. The funding policy should work to maintain funding levels that alleviate concerns of the plan participants and inspire confidence that pension benefits will be provided in their retirement years. A funding level should be maintained to avoid the need to issue participant notices that may disrupt the workforce or cause undo stress with regard to the security of pension benefits.

The Companies desire a pension funding policy that limits fluctuations in funding and expense, results in reasonable electric rates, provides for adequate funding levels, and avoids restrictions and adjustments related to lower funded levels.

Ratepayers are interested in reasonable, predictable electric rates, adequate pension funding, and intergenerational equity.

The Internal Revenue Service (IRS) and Pension Benefit Guarantee Corporation (PBGC) require regular filings on behalf of the Plan for purposes of reviewing funded status, contribution amounts and other plan factors including detailed asset and participant information. The IRS enforces minimum required and maximum deductible funding levels while the PBGC monitors the funded status of the plan and assesses premiums to support the defined benefit pension plan system.

Although the various stakeholders look at the funding policy from different perspectives, they all understand that a desirable funding policy should balance the needs and concerns of all parties. Such a funding policy will serve to secure pension benefits, maintain reasonable electric rates, limit financial volatility, and avoid undue scrutiny from regulatory and governmental agencies.

Alternatives Considered

In the past there were several "triggers" to consider while developing a funding policy: additional funding under deficit reduction contribution rules, maximum deductible levels, avoidance of PBGC variable rate premiums, and other comprehensive income under Statement of Financial Accounting Standard Number 87 (FAS 87) to name a few. However, recent changes in funding rules made by the Pension Protection Act of 2006 (PPA) and accounting rule changes made by Statement of Financial Accounting Standard Number 158 (FAS 158) have rendered many of these trigger points inconsequential.

The PPA completely revises the determination of minimum required contributions effective beginning in 2008. In the near term there are funding level triggers to consider to defer potential contributions for a few years, but in general the Plan will be required to fund toward a target liability. To avoid excessive contribution requirements in a given year the Plan should strive to maintain at least an 80% funded level. However, the funding policy under consideration will target a funded level in excess of 80%, thereby theoretically avoiding this additional funding trigger.

In addition, the PPA substantially increases the maximum deductible contribution that can be made to a defined benefit pension plan. The revised maximum deductible limit is designed in such a way as to increase the potential of stranded assets; that is, assets in excess of the amount needed to indefinitely sustain a pension plan without further contributions. This potential renders a policy of making the maximum deductible contribution impractical.

FAS 158 changes the financial reporting of a pension plan in a way that the previous trigger for reporting other comprehensive income (unfunded accumulated benefit obligation (ABO)[1] in excess of the accrued pension cost) is eliminated. The balance sheet now reflects the funded status of the plan based on projected benefit obligation (PBO)[2]; therefore, a policy to fund ABO has no clear advantage over alternative funding policies being considered.

After considering recent changes in pension funding law and financial reporting standards, the two pension funding policies considered are:

- Minimum Required Contribution (MRC) under the PPA
- Net Periodic Pension Cost (NPPC) under FAS87 - (There is a restriction that the MRC be funded as necessary, but by funding ahead of schedule a credit will be established to offset future funding requirements.)

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[1] Accumulated Benefit Obligation (ABO) as of a date is the actuarial present value of benefits attributed by the pension benefit formula to employee service rendered prior to that date and based on current and past compensation levels.

[2] Projected Benefit Obligation (PBO) as of a date is the actuarial present value of all benefits attributed by the pension benefit formula to employee service rendered prior to that date. The PBO is measured using assumptions as to future compensation levels if the pension benefit formula is based on those future compensation levels.

Background

A certain amount of background information is helpful in understanding the development of a funding policy. This section will summarize funding and expense issues related to pension plans, minimum funding under the PPA, net periodic cost under FAS 87 and an outline of a pension tracking mechanism for consideration to reconcile NPPC in rates from one rate case to the next.

To qualify for tax benefits, the design and funding of the pension plan must adhere to guidelines set forth by the Internal Revenue Service through the Internal Revenue Code including Regulations, Notices and Procedures. Most recently, the Pension Protection Act of 2006 (PPA) affects the required funding of a qualified pension plan; although guidelines as to application of the law are yet to be published, the changes generally come into effect in 2008. A plan sponsor may adopt any funding methodology as long as the method adopted meets the minimum required funding under the PPA without exceeding maximum deductible limitations.

For minimum funding purposes, the PPA defines a new measure of plan obligation to be referred to in this report as Target Liability. The Target Liability reflects the value of benefits accrued as of the valuation date. The Target Liability is the discounted value of anticipated cash flows related to the accrued benefits based on mandated mortality assumptions and a yield curve yet to be defined. The consensus is that the mandated yield curve will be based on the return of high quality corporate bonds. In some sense, the Target Liability may be considered a conservative measure of accumulated benefit obligation measure under FAS 87. Required funding will include two components, an amortization of the Target Liability in excess of plan assets plus a normal cost component to reflect the value of benefits accruing during the current year.

As an alternative, a plan may consider funding in accordance with the net periodic pension cost (NPPC) recognized under Statement of Financial Accounting Standard Number 87. As described in greater detail below, the NPPC differs from PPA funding in two major ways: (1) the obligation at the valuation date includes the anticipated impact of future salary increases on benefits accrued to date [the difference between projected benefit obligation and accumulated benefit obligation] and (2) the long-term expected rate of return on assets is used to offset cost rather than the rate of return on high quality corporate bonds. Under this alternative, if the MRC in any given year exceeds the NPPC, then the MRC would be funded. The excess of MRC over NPPC will be a credit to reduce prospective funding under NPPC.

The following two sections provide more detailed descriptions of PPA funding and NPPC funding. An overview of Legal and Tax Requirements, including a brief history on the evolution of pension plan funding, is included in Appendix B.

Minimum Funding - PPA

The PPA includes nuances regarding the strategic use of credit balances, the potential of additional funding requirements if a plan is found to be "at-risk" and the phase in of certain funding requirements. To avoid clouding the picture with these nuances we will provide a basic description of PPA funding here and refer the reader to the presentation in Appendix D for a more in-depth discussion of the PPA.

The PPA is designed to fund toward the Target Liability of a pension plan. This includes an amortization of Target Liability in excess of Actuarial Assets, plus Normal Cost. The primary components of funding involve the following terms.

Target Liability is the discounted value of anticipated cash flows attributed to pension benefits accrued as of the valuation date. The discount will be based on a yield curve designed by the Internal Revenue Service through Regulations; this curve is expected to be representative of the yields on high quality corporate bonds. Accrued benefits are based on salaries and service as of the valuation date; anticipated cash flows related to these accrued benefits are derived from assumptions relating to anticipated decrements (termination of employment, disability, retirement and death). The mortality assumption will be provided by regulation; the plan sponsor and actuary will develop the other assumptions based on the experience of the plan.

Normal Cost is the expected increase in Target Liability attributable to service and salaries for the current year. The same assumptions as used for the Target Liability are used to determine Normal Cost.

Actuarial Assets is the value of funds held in trust to provide plan benefits. The value includes accrued contributions as of the valuation date, but generally excludes any Credit Balance. The PPA will allow some averaging of assets as a tool to reduce fluctuations of year-to-year contribution requirements.

If the Target Liability exceeds Actuarial Assets, the difference is amortized over seven (7) years. The Normal Cost plus the amortization is the minimum funding required to the plan.

If Actuarial Assets exceed Target Liability, the difference may be applied to offset the Normal Cost. The minimum required contribution is the excess of Normal Cost over the excess Actuarial Assets (not less than zero).

The **Credit Balance** is the accumulated value of contributions in excess of the minimum required contributions. If a Credit Balance exists, it may be used to offset the funding requirements of the plan. For purposes of calculating the required contribution, the Credit Balance is excluded from Actuarial Assets. Once used to offset any contribution requirement, the portion of the Credit Balance used shifts from Credit Balance to Actuarial Assets.

NPPC – FAS87

Following is a summary of how the Net Periodic Pension Cost (NPPC) is developed. For more detailed information, please refer to Statement of Financial Accounting Standard Number 87.

The NPPC is the sum of the following components:

- Service Cost
- Interest Cost
- Return on Assets (an income item)
- Amortization of Prior Service Cost
- Amortization of Gain/Loss
- Amortization of Transition Obligation/Asset

These components and key elements used in their development are described as follows.

Service Cost is similar to Normal Cost described under PPA Funding. It is the value of benefits accruing during the current year based on a discount rate selected by the company that is representative of the rates of return available on high quality corporate bonds. The impact of anticipated future salary levels is reflected in the Service Cost.

Interest Cost is the expected increase in Projected Benefit Obligation (PBO) related to the current year. Basically, this is the Discount Rate times the PBO and is related to a one year decrease in the discount period due to the aging of all participants.

Projected Benefit Obligation (PBO) is similar to the Target Liability except the anticipated impact of future increases in salaries is included in the PBO. The expected cash flows related to accrued benefits (calculated using anticipated future salaries) are discounted to the valuation date using the Discount Rate.

Discount Rate is a rate selected by the plan sponsor for purposes of valuing pension benefit obligations on financials. It is representative of the rate of return on high quality corporate bonds as of the valuation date.

Return on Assets is the expected increase in assets for the year based on a long-term expected rate of return and the allocation of assets held in trust. This rate is generally higher than the Discount Rate as a plan's asset allocation typically includes both debt instruments and equity instruments with a higher expected return than a bond-only portfolio.

Amortization of Prior Service Cost is the amortization of an increase in PBO associated with a plan change; for example, if a plan is amended to increase accrued benefits, then the value of the increase may be spread over a future service period.

Amortization of Gain/Loss is an amortization of the accumulated gains and losses of PBO and assets as of the valuation date. FAS 87 describes a minimum amortization of accumulated unrecognized gain or loss as the unrecognized gain or loss in excess of 10% of the greater of PBO or the market-related value of assets divided by the average remaining service period of active participants.

Amortization of Transition Obligation/Asset is an amortization of the net obligation or asset existing at the initial application of FAS 87. Generally, these amounts have been fully recognized and this component is zero.

Pension Tracking Mechanism

A pension tracking mechanism has been presented by the Division of Consumer Advocacy to assist in the systematic recovery through rates of contributions required to fund the pension plan on the basis of funding the NPPC. This mechanism is designed to reconcile NPPC recovered in rates (established in a rate case), actual NPPC, and actual contributions made to fund the pension plan.

The NPPC in rates is established in a rate case test year. Between the initial rate case test year and the next rate case test year, differences in contributions, the actual NPPC and the NPPC recovered through rates are tracked. The cumulative difference as of the new rate case test year is included in rate base, amortized and reflected in rates. Any additional cumulative contributions required to meet funding requirements will be amortized and reflected as well.

HELCO adopted the pension tracking mechanism in its 2006 test year rate case; therefore, for purposes of illustration and discussion, HELCO is used as an example. Appendix A includes tables illustrating the application of a pension tracking mechanism for HECO and MECO assuming the pension tracking mechanism is adopted in their respective 2007 test year rate cases. Projections for each Company are based on the two considered funding policies under three different prospective economic scenarios described below. Summary tables of the projection of contribution and expense under each alternative are provided to assist in the comparison of the funding policies.

Funding Policy Considerations/Criteria

The MRC is designed to fund toward Target Liability, but without reflecting an expectation that assets may have an investment return in excess of the corporate bond yield curve. Under ordinary circumstances when the assets equal or exceed the Target Liability, the asset return in excess of the corporate bond yield curve would be used to fund Normal Cost and would be expected to eventually put the plan in an over funded position.

The NPPC is designed to fund toward the projected benefit obligation; that is, toward the value of accrued benefits including anticipated future salary increases, while reflecting the expected return on assets based on investments in the trust. By design, the NPPC is expected to result in a smoother funding progression than the MRC.

In order to analyze and compare the funding policies under consideration, projections of funding and expense over a ten-year period have been prepared for each of the subsidiaries. Appendix A compares the contribution and NPPC patterns under the alternative funding policies for three different economic scenarios. Each of the contribution and expense scenarios reflect the impact of funding the MRC compared to funding the NPPC. For purposes of reference the economic scenarios are based on the following assumptions.

Summary of Assumptions Reflecting Three Economic Scenarios Considered

	Economic Scenario		
Assumption	**Baseline**	**Less Favorable**	**More Favorable**
Discount Rate	6.0%	5.5%	6.5%
Expected Return on Assets	8.5%	8.5%	8.5%
Actual Return on Assets	8.5%	6.0%	9.5%
Target Liability Rate	6.0%	5.5%	6.5%

The primary considerations and criteria for developing a long-term funding policy include the following.

Benefit security – maintain a sound funding level to alleviate concerns of plan participants and inspire confidence that earned benefits will be provided in retirement years.

Flexibility – allow greatest possible range of funding to facilitate efficient use of capital.

Stability/predictability – considered in conjunction with flexibility, reduce volatility of contribution requirements.

Reasonable electric rates – balance funding requirements with the need to provide benefit security and maintain reasonable and predictable electric rates.

Funding status – improve the funded status of the plan (ratio of assets to obligations) toward a self sustaining level of accrued benefits while minimizing the risk of stranded assets. Anticipate need to fund annually for benefits accruing during a given year in an effort to maintain intergenerational equity.

Quantitative Analysis (Summary Tables)

This report provides a summary, including revenue requirements, of each of the considered funding policies. The revenue requirements assume adoption of a pension tracking mechanism which reconciles amounts recovered in rates and amounts contributed to fund the pension plan. All revenue requirement amounts were calculated by HECO. Year 1 on the summary and detail tables represents 2007 for HELCO and 2008 for HECO and MECO. Asterisked years on the tables are assumed rate case years.

Table 1 provides a summary of a ten-year projection comparing the NPPC in rates to contributions, actual NPPC levels and revenue requirements and funded status stated as the ratio of market value of assets to projected benefit obligation for HELCO using the Pension Tracking Mechanism. Appendix A includes a copy of this information and summary information for HECO and MECO. Appendix A also contains details from the pension tracking mechanism in support of the summary information. The summary tables are structured to provide a side-by-side comparison of the funding policies under consideration under each of the three economic scenarios. The table includes a sum of the pertinent information over the projection period as well as the net present value at year 1 based on a discount rate of 9%.

Appendix C provides a graphical representation of projected contributions and expenses under the funding policy alternatives by Company for each of the three economic scenarios. Under the MRC policy, contributions start out lower than under the NPPC policy, but increase sharply when the plan emerges from a "fully funded" status. After a couple of years the MRC funding levels approach the NPPC levels. By contrast the NPPC policy results in a smoothly declining contribution pattern. An exception to this pattern is seen under the less favorable economic scenario where the contribution under the NPPC policy is increased due to minimum required funding requirements starting in 2012; however, the increase lags the MRC policy increase by a few years. This lag can be expected to give the economics an opportunity to smooth variations before contributions are required.

In addition, Appendix C includes graphic representation of the ratio of assets to projected benefit obligation (funded ratio) through the projection period. In most cases the funded ratio is projected to improve. In general, the NPPC policy results in a higher funded status than the MRC policy. The exception is under the sustained less favorable economic scenario where the MRC policy edges out the NPPC policy with regard to funded status.

The Nature of Actuarial Calculations

The results documented in this report are estimated based on data that may be imperfect and on assumptions about future events. Certain plan provisions may be approximated or deemed immaterial and therefore are not valued. Assumptions may be made about participant data or other factors. Reasonable efforts were made to ensure that items that are significant in the context of the actuarial liabilities or costs are treated appropriately, and not excluded or included inappropriately.

Actuarial calculations are inherently imprecise; actual future experience will differ from the assumptions used in the calculations. A range of results, different from those presented in this report could be considered reasonable.

Discussion and Conclusion

As shown in Table 1, the two alternative funding policies produce similar results with respect to both 10-year total and net present value of revenue requirements under all three economic scenarios. Revenue requirements are slightly lower under the MRC policy whereas the pattern of revenue requirements is smoother under the NPPC policy. Similarly, the contribution amounts and funded ratios are not significantly different under the baseline and less favorable economic scenarios. Under the more favorable economic scenario, the NPPC policy produces larger contributions and higher funded ratios. Under both funding polices and all three economic scenarios, funded ratios are adequate to excellent and contribution and expense levels are reasonable and relatively stable.

Figures 1, 2 and 3 below provide graphical support for the above discussion by comparing the net present value of NPPC in rates, actual NPPC, contributions and revenue requirements over the projection period related to the two considered funding policies for each of HELCO, HECO and MECO under three selected economic scenarios.

Based on the projection results and analysis presented in this report, either funding policy alternative, MRC or NPPC, would serve as a reasonable funding policy. Both alternatives balance the needs and concerns of all stakeholders; both provide adequate benefit security, financial flexibility, stable contribution and expense amounts, and reasonable revenue requirement levels.

Table 1 - HELCO
Summary of Two Funding Policies Under Three Economic Scenarios

Baseline Economic Scenario

	Fund NPPC					Fund MRC				
	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status
Year 1	2,744	3,500	6,308	3,500	90.4%	2,744	3,500	6,308	-	90.4%
Year 2	2,744	2,900	6,308	2,900	92.0%	2,744	3,000	6,308	-	89.4%
Year 3	2,744	2,600	6,308	2,600	93.1%	2,744	3,000	6,308	-	88.3%
Year 4	2,744	2,400	6,308	2,400	93.9%	2,744	3,000	6,308	-	87.2%
Year 5 •	2,744	2,100	2,493	2,100	94.5%	2,744	3,000	811	4,500	86.0%
Year 6	2,056	2,000	2,493	2,000	94.9%	1,156	2,800	811	6,400	87.7%
Year 7	2,056	2,000	2,493	2,000	95.2%	1,156	2,400	811	6,100	90.5%
Year 8	2,056	2,000	2,493	2,000	95.4%	1,156	2,200	811	2,200	93.2%
Year 9	2,056	2,000	2,493	2,000	95.7%	1,156	2,200	811	2,600	93.5%
Year 10 •	2,056	2,000	2,621	2,000	95.9%	1,156	2,300	3,932	2,600	94.0%
Total	24,000	23,500	40,310	23,500		19,500	27,400	33,211	24,400	
NPV	15,871	15,781	28,406	15,781		13,598	18,199	24,325	13,477	

Less Favorable Economic Scenario

	Fund NPPC					Fund MRC				
	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status
Year 1	2,744	4,400	6,308	4,400	84.5%	2,744	4,400	6,308	-	84.5%
Year 2	2,744	3,900	6,308	3,900	84.8%	2,744	4,000	6,308	-	81.6%
Year 3	2,744	3,700	6,308	3,700	84.4%	2,744	4,200	6,308	-	78.7%
Year 4	2,744	3,700	6,308	3,700	83.8%	2,744	4,300	6,308	8,000	75.6%
Year 5 •	2,744	3,700	5,202	3,700	83.1%	2,744	4,000	4,748	9,800	77.7%
Year 6	4,836	4,000	5,202	4,000	82.3%	4,816	3,800	4,748	10,100	80.7%
Year 7	4,836	4,000	5,202	9,800	81.5%	4,816	3,700	4,748	10,300	83.6%
Year 8	4,836	3,900	5,202	10,800	84.0%	4,816	3,500	4,748	10,500	86.4%
Year 9	4,836	3,700	5,202	11,000	86.9%	4,816	3,300	4,748	10,700	89.2%
Year 10 •	4,836	3,400	11,490	11,200	89.6%	4,816	3,100	11,227	5,600	91.9%
Total	37,900	38,400	62,724	66,200		37,800	38,300	60,191	65,000	
NPV	22,899	24,873	39,617	38,164		22,848	25,168	38,255	36,255	

More Favorable Economic Scenario

	Fund NPPC					Fund MRC				
	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status
Year 1	2,744	2,700	6,308	2,700	96.4%	2,744	2,700	6,308	-	96.4%
Year 2	2,744	2,100	6,308	2,100	98.4%	2,744	2,200	6,308	-	96.2%
Year 3	2,744	1,800	6,308	1,800	99.8%	2,744	2,100	6,308	-	96.0%
Year 4	2,744	1,600	6,308	1,600	101.0%	2,744	2,100	6,308	-	95.7%
Year 5 •	2,744	1,300	872	1,300	102.0%	2,744	1,900	(327)	-	95.4%
Year 6	456	1,200	872	1,200	102.8%	-	2,100	(327)	-	95.1%
Year 7	456	1,200	872	1,200	103.6%	-	2,300	(327)	-	94.8%
Year 8	456	1,300	872	1,300	104.5%	-	2,500	(327)	1,000	94.5%
Year 9	456	1,200	872	1,200	105.3%	-	2,600	(327)	1,300	94.8%
Year 10 •	456	1,100	1,452	1,100	106.2%	-	2,700	158	1,400	95.2%
Total	16,000	15,500	31,036	15,500		13,720	23,200	23,747	3,700	
NPV	11,826	10,654	23,446	10,654		10,673	14,776	19,595	1,692	

Figure 1a
HELCO
Present Value Contributions and Expense
Baseline Economic Scenario

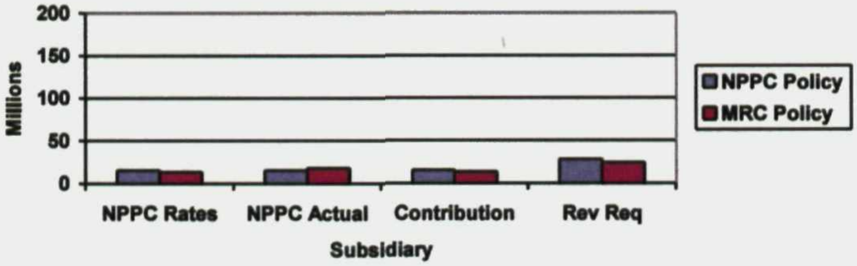


Figure 1b
HECO
Present Value Contributions and Expense
Baseline Economic Scenario

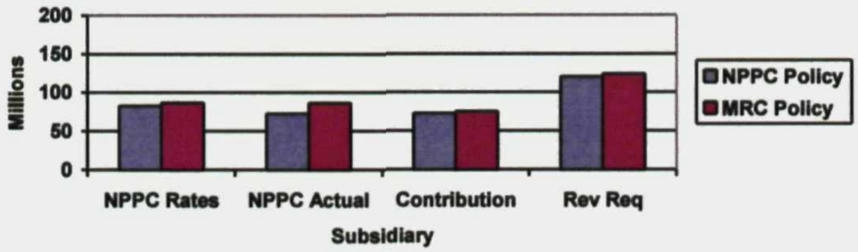


Figure 1c
MECO
Present Value Contributions and Expense
Baseline Economic Scenario

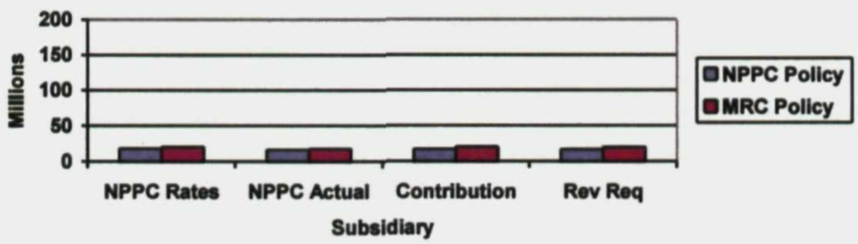


Figure 2a
HELCO
Present Value Contributions and Expense
Less Favorable Economic Scenario

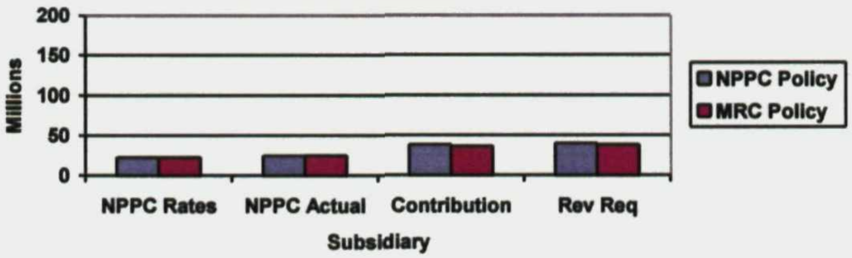


Figure 2b
HECO
Present Value Contributions and Expense
Less Favorable Economic Scenario

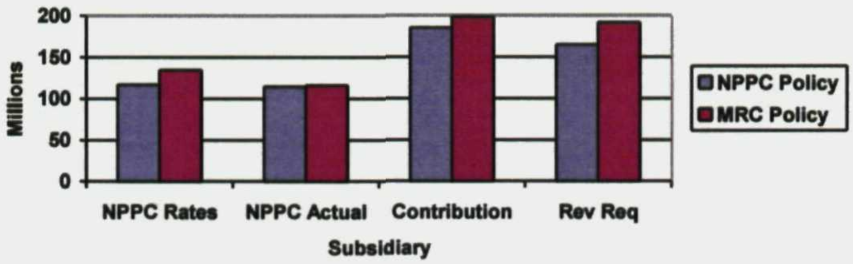


Figure 2c
MECO
Present Value Contributions and Expense
Less Favorable Economic Scenario

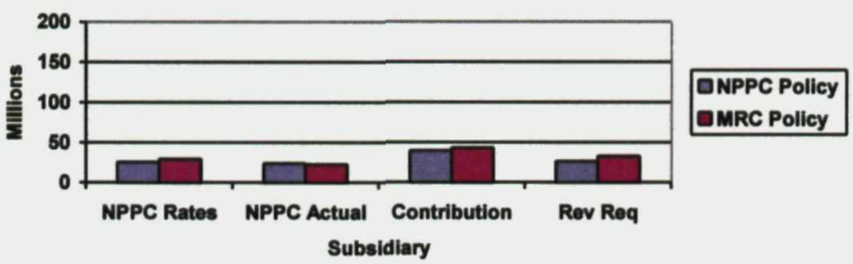


Figure 3a
HELCO
Present Value Contributions and Expense
More Favorable Economic Scenario

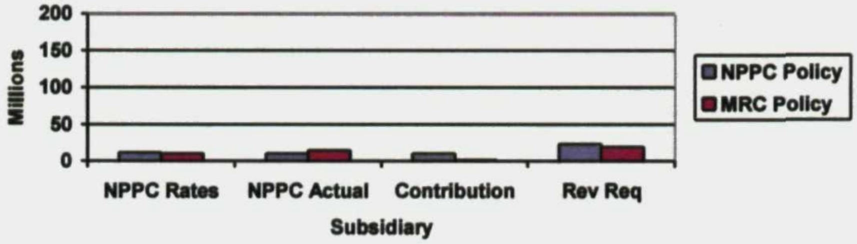


Figure 3b
HECO
Present Value Contributions and Expense
More Favorable Economic Scenario

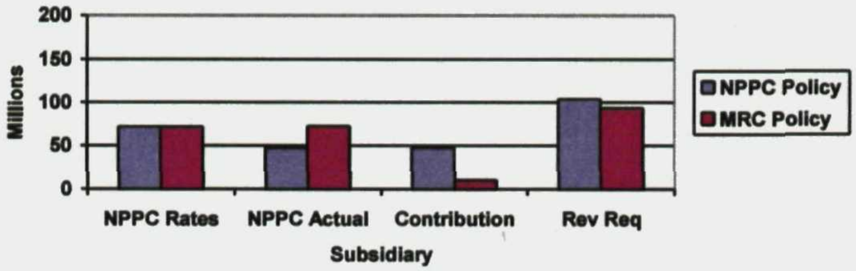
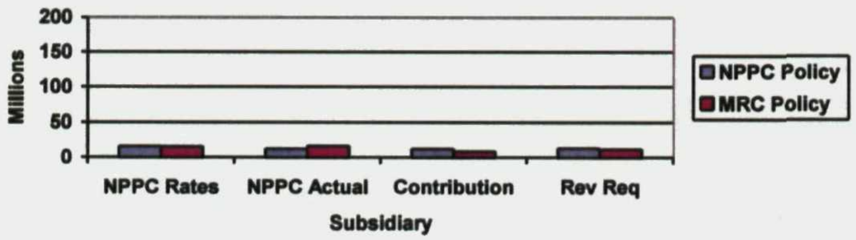


Figure 3c
MECO
Present Value Contributions and Expense
More Favorable Economic Scenario



Appendix A – Projection Summaries and Details

Provides side-by-side comparison of considered funding policies

- MRC – Minimum required contribution
- NPPC – contribute the net periodic pension cost

Comparison includes the following information over the projection period

- NPPC in Rates
- Actual NPPC (expense)
- Revenue Requirement
- Contribution
- Funded status based on market value of assets to projected benefit obligation (PBO)

Three Economic Scenarios Considered

Assumption	Baseline	Less Favorable	More Favorable
Discount Rate	6.0%	5.5%	6.5%
Expected Return on Assets	8.5%	8.5%	8.5%
Actual Return on Assets	8.5%	6.0%	9.5%
Target Liability Rate	6.0%	5.5%	6.5%

Table A-1 HELCO Summary – Summarizes the Details of Tables A-4 through A-9

Table A-2 HECO Summary – Summarizes the Details of Tables A-10 through A-15

Table A-3 MECO Summary – Summarizes the Details of Tables A-16 through A-21

HELCO Details – Pension Tracking Mechanism

- Table A-4 NPPC under Baseline Economic Scenario
- Table A-5 MRC under Baseline Economic Scenario
- Table A-6 NPPC under Less Favorable Economic Scenario
- Table A-7 MRC under Less Favorable Economic Scenario
- Table A-8 NPPC under More Favorable Economic Scenario
- Table A-9 MRC under More Favorable Economic Scenario

HECO Details – Pension Tracking Mechanism

- Table A-10 NPPC under Baseline Economic Scenario
- Table A-11 MRC under Baseline Economic Scenario
- Table A-12 NPPC under Less Favorable Economic Scenario
- Table A-13 MRC under Less Favorable Economic Scenario
- Table A-14 NPPC under More Favorable Economic Scenario
- Table A-15 MRC under More Favorable Economic Scenario

MECO Details – Pension Tracking Mechanism

- Table A-16 NPPC under Baseline Economic Scenario
- Table A-17 MRC under Baseline Economic Scenario
- Table A-18 NPPC under Less Favorable Economic Scenario
- Table A-19 MRC under Less Favorable Economic Scenario
- Table A-20 NPPC under More Favorable Economic Scenario
- Table A-21 MRC under More Favorable Economic Scenario

Table A-1
HELCO
Summary of Two Funding Policies Under Three Economic Scenarios

Baseline Economic Scenario

	Fund NPPC					Fund MRC				
	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status
Year 1	2,744	3,500	6,306	3,500	90.4%	2,744	3,500	6,306	-	90.4%
Year 2	2,744	2,900	6,306	2,900	92.0%	2,744	3,000	6,306	-	89.4%
Year 3	2,744	2,600	6,306	2,600	93.1%	2,744	3,000	6,306	-	88.3%
Year 4	2,744	2,400	6,306	2,400	93.9%	2,744	3,000	6,306	-	87.2%
Year 5 •	2,744	2,100	2,493	2,100	94.5%	2,744	3,000	811	4,500	86.0%
Year 6	2,056	2,000	2,493	2,000	94.9%	1,156	2,800	811	6,400	87.7%
Year 7	2,056	2,000	2,493	2,000	95.2%	1,156	2,400	811	6,100	90.5%
Year 8	2,056	2,000	2,493	2,000	95.4%	1,156	2,200	811	2,200	93.2%
Year 9	2,056	2,000	2,493	2,000	95.7%	1,156	2,200	811	2,600	93.5%
Year 10 •	2,056	2,000	2,621	2,000	95.9%	1,156	2,300	3,932	2,600	94.0%
Total	24,000	23,500	40,310	23,500		19,500	27,400	33,211	24,400	
NPV	15,871	15,781	28,406	15,781		13,596	18,199	24,325	13,477	

Less Favorable Economic Scenario

	Fund NPPC					Fund MRC				
	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status
Year 1	2,744	4,400	6,306	4,400	84.5%	2,744	4,400	6,306	-	84.5%
Year 2	2,744	3,900	6,306	3,900	84.8%	2,744	4,000	6,306	-	81.6%
Year 3	2,744	3,700	6,306	3,700	84.4%	2,744	4,200	6,306	-	78.7%
Year 4	2,744	3,700	6,306	3,700	83.8%	2,744	4,300	6,306	8,000	75.6%
Year 5 •	2,744	3,700	5,202	3,700	83.1%	2,744	4,000	4,748	9,800	77.7%
Year 6	4,836	4,000	5,202	4,000	82.3%	4,816	3,800	4,748	10,100	80.7%
Year 7	4,836	4,000	5,202	9,600	81.5%	4,816	3,700	4,748	10,300	83.6%
Year 8	4,836	3,900	5,202	10,800	84.0%	4,816	3,500	4,748	10,500	86.4%
Year 9	4,836	3,700	5,202	11,000	86.9%	4,816	3,300	4,748	10,700	89.2%
Year 10 •	4,836	3,400	11,490	11,200	89.6%	4,816	3,100	11,227	5,600	91.9%
Total	37,900	38,400	62,724	66,200		37,800	38,300	60,191	65,000	
NPV	22,899	24,873	39,617	38,164		22,848	25,168	38,255	36,255	

More Favorable Economic Scenario

	Fund NPPC					Fund MRC				
	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status
Year 1	2,744	2,700	6,306	2,700	96.4%	2,744	2,700	6,306	-	96.4%
Year 2	2,744	2,100	6,306	2,100	98.4%	2,744	2,200	6,306	-	96.2%
Year 3	2,744	1,800	6,306	1,800	99.8%	2,744	2,100	6,306	-	96.0%
Year 4	2,744	1,600	6,306	1,600	101.0%	2,744	2,100	6,306	-	95.7%
Year 5 •	2,744	1,300	872	1,300	102.0%	2,744	1,900	(327)	-	95.4%
Year 6	456	1,200	872	1,200	102.8%	-	2,100	(327)	-	95.1%
Year 7	456	1,200	872	1,200	103.6%	-	2,300	(327)	-	94.8%
Year 8	456	1,300	872	1,300	104.5%	-	2,500	(327)	1,000	94.5%
Year 9	456	1,200	872	1,200	105.3%	-	2,600	(327)	1,300	94.8%
Year 10 •	456	1,100	1,452	1,100	106.2%	-	2,700	158	1,400	95.2%
Total	18,000	15,500	31,036	15,500		13,720	23,200	23,747	3,700	
NPV	11,826	10,654	23,446	10,654		10,673	14,776	19,595	1,692	

Table A-2
HECO
Summary of Two Funding Policies Under Three Economic Scenarios

Baseline Economic Scenario

	Fund NPPC					Fund MRC				
	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status
Year 1	18,400	15,600	31,067	15,600	91.8%	18,400	16,100	31,067	-	89.0%
Year 2	18,400	14,000	31,067	14,000	92.9%	18,400	16,000	31,067	-	87.9%
Year 3	18,400	12,700	31,067	12,700	93.8%	18,400	16,000	31,067	16,000	86.7%
Year 4	18,400	11,200	31,067	11,200	94.5%	18,400	14,300	31,067	28,400	87.7%
Year 5	18,400	10,800	7,231	10,800	95.0%	18,400	12,900	8,424	19,600	90.2%
Year 6	5,260	10,500	7,231	10,500	95.3%	7,300	12,500	8,424	13,300	91.6%
Year 7	5,260	10,700	7,231	10,700	95.7%	7,300	13,300	8,424	13,800	92.2%
Year 8	5,260	10,500	7,231	10,500	96.0%	7,300	13,100	8,424	14,700	92.7%
Year 9	5,260	10,300	7,231	10,300	96.3%	7,300	12,800	8,424	15,300	93.2%
Year 10										
Total	113,040	106,300	160,423	106,300		121,200	127,000	166,388	121,100	
NPV	82,645	72,982	120,574	72,982		86,940	86,304	123,881	75,114	

Less Favorable Economic Scenario

	Fund NPPC					Fund MRC				
	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status
Year 1	18,400	20,300	31,067	20,300	84.6%	18,400	20,800	31,067	-	81.4%
Year 2	18,400	19,100	31,067	19,100	84.3%	18,400	21,600	31,067	12,400	78.3%
Year 3	18,400	18,900	31,067	18,900	83.7%	18,400	21,800	31,067	43,400	76.9%
Year 4	18,400	19,000	31,067	19,000	83.0%	18,400	19,700	31,067	44,900	79.2%
Year 5	18,400	19,700	23,471	25,500	82.2%	18,400	19,000	33,178	46,300	81.7%
Year 6	21,860	19,700	23,471	48,500	82.2%	30,000	18,200	33,178	47,600	84.1%
Year 7	21,860	19,300	23,471	50,000	84.7%	30,000	17,700	33,178	49,000	86.6%
Year 8	21,860	18,300	23,471	51,400	87.2%	30,000	16,700	33,178	50,400	89.0%
Year 9	21,860	17,100	23,471	52,600	89.7%	30,000	16,100	33,178	26,800	91.4%
Year 10										
Total	179,440	171,400	241,623	305,300		212,000	171,600	290,158	320,800	
NPV	117,598	114,920	165,323	165,613		134,737	116,730	192,071	198,670	

More Favorable Economic Scenario

	Fund NPPC					Fund MRC				
	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status
Year 1	18,400	11,700	31,067	11,700	98.0%	18,400	12,100	31,067	-	95.7%
Year 2	18,400	10,100	31,067	10,100	99.6%	18,400	11,700	31,067	-	95.4%
Year 3	18,400	8,600	31,067	8,600	100.9%	18,400	11,200	31,067	-	95.2%
Year 4	18,400	6,900	31,067	6,900	102.1%	18,400	10,600	31,067	-	94.8%
Year 5	18,400	6,500	1,287	6,500	103.0%	18,400	11,200	(2,531)	-	94.5%
Year 6	-	6,300	1,287	6,300	103.9%	-	12,000	(2,531)	-	94.1%
Year 7	-	6,500	1,287	6,500	104.8%	-	13,300	(2,531)	4,200	93.8%
Year 8	-	6,200	1,287	6,200	105.7%	-	14,100	(2,531)	8,300	93.9%
Year 9	-	5,800	1,287	5,800	106.6%	-	14,500	(2,531)	8,900	94.4%
Year 10										
Total	92,000	68,600	130,703	68,600		92,000	110,700	111,813	21,400	
NPV	71,570	48,083	104,195	48,083		71,570	72,569	93,674	10,561	

Table A-3
MECO
Summary of Two Funding Policies Under Three Economic Scenarios

Baseline Economic Scenario

	Fund NPPC					Fund MRC				
	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status
Year 1	3,900	3,500	3,685	3,500	88.8%	3,900	3,600	3,685	-	85.4%
Year 2	3,900	3,200	3,685	3,200	89.9%	3,900	3,600	3,685	1,000	83.8%
Year 3	3,900	3,000	3,685	3,000	90.7%	3,900	3,500	3,685	6,600	82.9%
Year 4	3,900	2,700	3,685	2,700	91.4%	3,900	3,100	3,685	6,400	88.1%
Year 5	3,900	2,500	1,949	2,600	91.8%	3,900	2,600	3,100	5,800	89.1%
Year 6	1,600	2,400	1,949	2,400	92.2%	2,660	2,400	3,100	3,100	91.7%
Year 7	1,600	2,300	1,949	3,000	92.5%	2,660	2,500	3,100	3,000	92.5%
Year 8	1,600	2,400	1,949	3,000	93.2%	2,660	2,400	3,100	3,100	93.1%
Year 9	1,600	2,400	1,949	3,200	93.7%	2,660	2,400	3,100	3,200	93.7%
Year 10	-	-	-	-		-	-	-	-	
Total	25,900	24,400	24,485	26,600		30,140	28,100	30,240	32,200	
NPV	18,539	16,757	17,309	17,875		20,771	18,030	20,481	20,760	

Less Favorable Economic Scenario

	Fund NPPC					Fund MRC				
	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status
Year 1	3,900	4,400	3,685	4,400	81.7%	3,900	4,600	3,685	-	77.8%
Year 2	3,900	4,300	3,685	4,300	81.6%	3,900	4,600	3,685	8,200	74.5%
Year 3	3,900	4,200	3,685	4,200	81.3%	3,900	4,300	3,685	9,000	77.1%
Year 4	3,900	4,200	3,685	4,200	80.8%	3,900	3,900	3,685	9,200	80.1%
Year 5	3,900	4,100	5,402	7,300	80.2%	3,900	3,600	7,804	9,400	83.0%
Year 6	5,080	3,900	5,402	9,900	81.6%	6,860	3,300	7,804	9,600	85.8%
Year 7	5,080	3,800	5,402	10,100	84.4%	6,860	3,200	7,804	9,700	88.4%
Year 8	5,080	3,500	5,402	10,400	87.2%	6,860	3,000	7,804	5,700	91.0%
Year 9	5,080	3,300	5,402	10,600	89.9%	6,860	3,300	7,804	7,100	91.2%
Year 10	-	-	-	-		-	-	-	-	
Total	39,820	35,700	41,750	65,400		46,940	33,800	53,760	67,900	
NPV	25,868	24,219	28,824	40,147		29,614	23,258	33,443	43,638	

More Favorable Economic Scenario

	Fund NPPC					Fund MRC				
	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status	NPPC in Rates	Actual Expense	Revenue Requirement	Contribution	Funded Status
Year 1	3,900	2,600	3,685	2,600	95.0%	3,900	2,700	3,685	-	92.2%
Year 2	3,900	2,400	3,685	2,400	96.3%	3,900	2,700	3,685	-	91.3%
Year 3	3,900	2,200	3,685	2,200	97.4%	3,900	2,700	3,685	2,600	90.4%
Year 4	3,900	2,100	3,685	2,100	98.4%	3,900	2,700	3,685	2,100	91.6%
Year 5	3,900	2,000	635	2,000	99.3%	3,900	2,800	105	2,000	92.4%
Year 6	360	1,900	635	1,900	100.2%	240	2,700	105	2,000	93.0%
Year 7	360	1,900	635	1,900	101.1%	240	2,800	105	1,900	93.7%
Year 8	360	1,800	635	1,800	102.1%	240	2,800	105	2,000	94.3%
Year 9	360	1,800	635	1,800	103.0%	240	2,900	105	2,000	94.9%
Year 10	-	-	-	-		-	-	-	-	
Total	20,940	18,700	17,915	18,700		20,460	24,800	15,265	14,800	
NPV	15,928	12,796	13,688	12,796		15,675	16,449	12,228	8,952	

Table A-4
HELCO
NPPC Funding Policy
Baseline Economic Assumptions

Rate Year	Description	NPPC In Rates			Actual	Contribution		Prepaid Pension Asset		Regulatory Asset		Regulatory Liability 1		Regulatory Liability 2		
		Base	Prepaid	Cum.	NPPC	Current	Cum.	Current	Cum.	Current	Cum.	Current	Cum.	Current	Cum.	Rev Req
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
Y	Initial				2,744				12,771							6,306
	Year 1	2,744	2,554	5,298	3,500	3,500	3,500	(2,554)	10,217	-	-	756	756	-	-	6,306
	Year 2	2,744	2,554	10,596	2,900	2,900	6,400	(2,554)	7,663	-	-	156	912	-	-	6,306
	Year 3	2,744	2,554	15,894	2,600	2,600	9,000	(2,554)	5,109	-	-	(144)	768	-	-	6,306
	Year 4	2,744	2,554	21,192	2,400	2,400	11,400	(2,554)	2,555	-	-	(344)	424	-	-	6,306
Y	Year 5	2,744	2,554	26,490	2,100	2,100	13,500	(2,554)	1	-	-	(644)	(220)	-	-	2,493
	Year 6	2,056	-	28,546	2,000	2,000	15,500	-	1	-	-	(56)	(276)	-	-	2,493
	Year 7	2,056	-	30,602	2,000	2,000	17,500	-	1	-	-	(56)	(332)	-	-	2,493
	Year 8	2,056	-	32,658	2,000	2,000	19,500	-	1	-	-	(56)	(388)	-	-	2,493
	Year 9	2,056	-	34,714	2,000	2,000	21,500	-	1	-	-	(56)	(444)	-	-	2,493
Y	Year 10	2,056	-	36,770	2,000	2,000	23,500	-	1	-	-	(56)	(500)	-	-	2,621
	Total	**24,000**	**12,770**		**23,500**	**23,500**		**(12,770)**								**40,310**
	NPV Year 1	**16,871**	**9,934**		**16,781**	**16,781**		**(9,934)**								**28,406**

Comments:
Assumptions

Discount Rate for NPPC	6.00%
Expected Asset Return for NPPC	8.50%
Actual Asset Return	8.50%
Target Liability Discount Rate for MRC	6.00%

(B) In the year following a rate year, the NPPC in Rates is the rate year Actual NPPC (E) plus the sum of Cumulative Regulatory Assets (K) and Cumulative Regulatory Liability 1 (M) divided by 5.

(C) Recovery of initial prepaid (cumulative net benefit to ratepayers at initial year) through NPPC in Rates.

(F) Actual NPPC is contributed unless higher contribution required by MRC. Additional amounts recorded in Regulatory Liability and used to offset subsequent years contributions.

(H), (I) Tracks the recovery of the initial prepaid.

(J), (K) Tracks differences in non-negative actual NPPC and contributions.

(L), (M) Tracks differences in NPPC in Rates and Actual NPPC.

(N), (O) Tracks pension incomes (negative Actual NPPC).

NPV Year 1 is the present value at the beginning of year 1 of the relevant column information discounted at 9%.

In any given year the Cumulative NPPC in Rates should equal the Cumulative contributions plus recovered prepaid less Cumulative Regulatory Assets less Cumulative Regulatory Liabilities.

Table A-5
HELCO
MRC Funding Policy
Baseline Economic Assumptions

Rate		NPPC In Rates			Actual	Contribution		Prepaid Pension Asset		Regulatory Asset		Regulatory Liability 1		Regulatory Liability 2		
Year	Description	Base	Prepaid	Cum.	NPPC	Current	Cum.	Current	Cum.	Current	Cum.	Current	Cum.	Current	Cum.	Rev Req
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
Y	Initial				2,744				12,771							6,306
	Year 1	2,744	2,554	5,298	3,500	-	-	(2,554)	10,217	(3,500)	(3,500)	756	756	-	-	6,306
	Year 2	2,744	2,554	10,596	3,000	-	-	(2,554)	7,663	(3,000)	(6,500)	256	1,012	-	-	6,306
	Year 3	2,744	2,554	15,894	3,000	-	-	(2,554)	5,109	(3,000)	(9,500)	256	1,268	-	-	6,306
	Year 4	2,744	2,554	21,192	3,000	-	-	(2,554)	2,555	(3,000)	(12,500)	256	1,524	-	-	6,306
Y	Year 5	2,744	2,554	26,490	3,000	4,500	4,500	(2,554)	1	1,500	(11,000)	256	1,780	-	-	811
	Year 6	1,156	-	27,646	2,800	6,400	10,900	-	1	3,600	(7,400)	1,644	3,424	-	-	811
	Year 7	1,156	-	28,802	2,400	6,100	17,000	-	1	3,700	(3,700)	1,244	4,668	-	-	811
	Year 8	1,156	-	29,958	2,200	2,200	19,200	-	1	-	(3,700)	1,044	5,712	-	-	811
	Year 9	1,156	-	31,114	2,200	2,600	21,800	-	1	400	(3,300)	1,044	6,756	-	-	811
Y	Year 10	1,156	-	32,270	2,300	2,600	24,400	-	1	300	(3,000)	1,144	7,900	-	-	3,932
	Total	**19,500**	**12,770**		**27,400**	**24,400**		**(12,770)**								**33,211**
	NPV Year 1	**13,696**	**9,934**		**18,199**	**13,477**		**(9,934)**								**24,325**

Comments:
Assumptions

Discount Rate for NPPC	6.00%
Expected Asset Return for NPPC	8.50%
Actual Asset Return	8.50%
Target Liability Discount Rate for MRC	6.00%

(B) In the year following a rate year, the NPPC in Rates is the rate year Actual NPPC (E) plus the sum of Cumulative Regulatory Assets (K) and Cumulative Regulatory Liability 1 (M) divided by 5.

(C) Recovery of initial prepaid (cumulative net benefit to ratepayers at initial year) through NPPC in Rates.

(F) Actual NPPC is contributed unless higher contribution required by MRC. Additional amounts recorded in Regulatory Liability and used to offset subsequent years contributions.

(H), (I) Tracks the recovery of the initial prepaid.

(J), (K) Tracks differences in non-negative actual NPPC and contributions.

(L), (M) Tracks differences in NPPC in Rates and Actual NPPC.

(N), (O) Tracks pension incomes (negative Actual NPPC).

NPV Year 1 is the present value at the beginning of year 1 of the relevant column information discounted at 9%.

In any given year the Cumulative NPPC in Rates should equal the Cumulative contributions plus recovered prepaid less Cumulative Regulatory Assets less Cumulative Regulatory Liabilities.

Table A-6
HELCO
NPPC Funding Policy
Less Favorable Economic Assumptions

Rate Year	Description	NPPC In Rates			Actual NPPC	Contribution		Prepaid Pension Asset		Regulatory Asset		Regulatory Liability 1		Regulatory Liability 2		Rev Req
		Base	Prepaid	Cum.		Current	Cum.	Current	Cum.	Current	Cum.	Current	Cum.	Current	Cum.	
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
Y	Initial				2,744				12,771							6,306
	Year 1	2,744	2,554	5,298	4,400	4,400	4,400	(2,554)	10,217	-	-	1,656	1,656	-	-	6,306
	Year 2	2,744	2,554	10,596	3,900	3,900	8,300	(2,554)	7,663	-	-	1,156	2,812	-	-	6,306
	Year 3	2,744	2,554	15,894	3,700	3,700	12,000	(2,554)	5,109	-	-	956	3,768	-	-	6,306
	Year 4	2,744	2,554	21,192	3,700	3,700	15,700	(2,554)	2,555	-	-	956	4,724	-	-	6,306
Y	Year 5	2,744	2,554	26,490	3,700	3,700	19,400	(2,554)	1	-	-	956	5,680	-	-	5,202
	Year 6	4,836	-	31,326	4,000	4,000	23,400	-	1	-	-	(836)	4,844	-	-	5,202
	Year 7	4,836	-	36,162	4,000	9,800	33,200	-	1	5,800	5,800	(836)	4,008	-	-	5,202
	Year 8	4,836	-	40,998	3,900	10,800	44,000	-	1	6,900	12,700	(936)	3,072	-	-	5,202
	Year 9	4,836	-	45,834	3,700	11,000	55,000	-	1	7,300	20,000	(1,136)	1,936	-	-	5,202
Y	Year 10	4,836	-	50,670	3,400	11,200	66,200	-	1	7,800	27,800	(1,436)	500	-	-	11,490
	Total	**37,900**	**12,770**		**38,400**	**66,200**		**(12,770)**								**62,724**
	NPV Year 1	**22,899**	**9,934**		**24,873**	**38,164**		**(9,934)**								**39,617**

Comments:
Assumptions

Discount Rate for NPPC	5.50%
Expected Asset Return for NPPC	8.50%
Actual Asset Return	6.00%
Target Liability Discount Rate for MRC	5.50%

(B) In the year following a rate year, the NPPC in Rates is the rate year Actual NPPC (E) plus the sum of Cumulative Regulatory Assets (K) and Cumulative Regulatory Liability 1 (M) divided by 5.

(C) Recovery of initial prepaid (cumulative net benefit to ratepayers at initial year) through NPPC in Rates.

(F) Actual NPPC is contributed unless higher contribution required by MRC. Additional amounts recorded in Regulatory Liability and used to offset subsequent years contributions.

(H), (I) Tracks the recovery of the initial prepaid.

(J), (K) Tracks differences in non-negative actual NPPC and contributions.

(L), (M) Tracks differences in NPPC in Rates and Actual NPPC.

(N), (O) Tracks pension incomes (negative Actual NPPC).

NPV Year 1 is the present value at the beginning of year 1 of the relevant column information discounted at 9%.

In any given year the Cumulative NPPC in Rates should equal the Cumulative contributions plus recovered prepaid less Cumulative Regulatory Assets less Cumulative Regulatory Liabilities.

Table A-7
HELCO
MRC Funding Policy
Less Favorable Economic Assumptions

Rate		NPPC In Rates			Actual	Contribution		Prepaid Pension Asset		Regulatory Asset		Regulatory Liability 1		Regulatory Liability 2		
Year	Description	Base	Prepaid	Cum.	NPPC	Current	Cum.	Current	Cum.	Current	Cum.	Current	Cum.	Current	Cum.	Rev Req
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
Y	Initial				2,744				12,771							6,306
	Year 1	2,744	2,554	5,298	4,400	-	-	(2,554)	10,217	(4,400)	(4,400)	1,656	1,656	-	-	6,306
	Year 2	2,744	2,554	10,596	4,000	-	-	(2,554)	7,663	(4,000)	(8,400)	1,256	2,912	-	-	6,306
	Year 3	2,744	2,554	15,894	4,200	-	-	(2,554)	5,109	(4,200)	(12,600)	1,456	4,368	-	-	6,306
	Year 4	2,744	2,554	21,192	4,300	8,000	8,000	(2,554)	2,555	3,700	(8,900)	1,556	5,924	-	-	6,306
Y	Year 5	2,744	2,554	26,490	4,000	9,800	17,800	(2,554)	1	5,800	(3,100)	1,256	7,180	-	-	4,748
	Year 6	4,816	-	31,306	3,800	10,100	27,900	-	1	6,300	3,200	(1,016)	6,164	-	-	4,748
	Year 7	4,816	-	36,122	3,700	10,300	38,200	-	1	6,600	9,800	(1,116)	5,048	-	-	4,748
	Year 8	4,816	-	40,938	3,500	10,500	48,700	-	1	7,000	16,800	(1,316)	3,732	-	-	4,748
	Year 9	4,816	-	45,754	3,300	10,700	59,400	-	1	7,400	24,200	(1,516)	2,216	-	-	4,748
Y	Year 10	4,816	-	50,570	3,100	5,600	65,000	-	1	2,500	26,700	(1,716)	500	-	-	11,227
	Total	**37,800**	**12,770**		**38,300**	**65,000**		**(12,770)**								**60,191**
	NPV Year 1	**22,848**	**9,934**		**25,168**	**36,255**		**(9,934)**								**38,255**

Comments:
Assumptions

Discount Rate for NPPC	5.50%
Expected Asset Return for NPPC	8.50%
Actual Asset Return	6.00%
Target Liability Discount Rate for MRC	5.50%

(B) In the year following a rate year, the NPPC In Rates is the rate year Actual NPPC (E) plus the sum of Cumulative Regulatory Assets (K) and Cumulative Regulatory Liability 1 (M) divided by 5.

(C) Recovery of initial prepaid (cumulative net benefit to ratepayers at initial year) through NPPC In Rates.

(F) Actual NPPC is contributed unless higher contribution required by MRC. Additional amounts recorded in Regulatory Liability and used to offset subsequent years contributions.

(H), (I) Tracks the recovery of the initial prepaid.

(J), (K) Tracks differences in non-negative actual NPPC and contributions.

(L), (M) Tracks differences in NPPC in Rates and Actual NPPC.

(N), (O) Tracks pension incomes (negative Actual NPPC).

NPV Year 1 is the present value at the beginning of year 1 of the relevant column information discounted at 9%.

In any given year the Cumulative NPPC in Rates should equal the Cumulative contributions plus recovered prepaid less Cumulative Regulatory Assets less Cumulative Regulatory Liabilities.

Table A-8
HELCO
NPPC Funding Policy
More Favorable Economic Assumptions

Rate		NPPC In Rates			Actual	Contribution		Prepaid Pension Asset		Regulatory Asset		Regulatory Liability 1		Regulatory Liability 2		
Year	Description	Base	Prepaid	Cum.	NPPC	Current	Cum.	Current	Cum.	Current	Cum.	Current	Cum.	Current	Cum.	Rev Req
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
Y	Initial				2,744				12,771							6,306
	Year 1	2,744	2,554	5,298	2,700	2,700	2,700	(2,554)	10,217	-	-	(44)	(44)	-	-	6,306
	Year 2	2,744	2,554	10,596	2,100	2,100	4,800	(2,554)	7,663	-	-	(644)	(688)	-	-	6,306
	Year 3	2,744	2,554	15,894	1,800	1,800	6,600	(2,554)	5,109	-	-	(944)	(1,632)	-	-	6,306
	Year 4	2,744	2,554	21,192	1,600	1,600	8,200	(2,554)	2,555	-	-	(1,144)	(2,776)	-	-	6,306
Y	Year 5	2,744	2,554	26,490	1,300	1,300	9,500	(2,554)	1	-	-	(1,444)	(4,220)	-	-	872
	Year 6	456	-	26,946	1,200	1,200	10,700	-	1	-	-	744	(3,476)	-	-	872
	Year 7	456	-	27,402	1,200	1,200	11,900	-	1	-	-	744	(2,732)	-	-	872
	Year 8	456	-	27,858	1,300	1,300	13,200	-	1	-	-	844	(1,888)	-	-	872
	Year 9	456	-	28,314	1,200	1,200	14,400	-	1	-	-	744	(1,144)	-	-	872
Y	Year 10	456	-	28,770	1,100	1,100	15,500	-	1	-	-	644	(500)	-	-	1,452
	Total	**16,000**	**12,770**		**15,500**	**15,500**		**(12,770)**								**31,036**
	NPV Year 1	**11,826**	**9,934**		**10,654**	**10,654**		**(9,934)**								**23,446**

Comments:
Assumptions

Discount Rate for NPPC	6.50%
Expected Asset Return for NPPC	8.50%
Actual Asset Return"	9.50%
Target Liability Discount Rate for MRC	6.50%

(B) In the year following a rate year, the NPPC in Rates is the rate year Actual NPPC (E) plus the sum of Cumulative Regulatory Assets (K) and Cumulative Regulatory Liability 1 (M) divided by 5.

(C) Recovery of initial prepaid (cumulative net benefit to ratepayers at initial year) through NPPC in Rates.

(F) Actual NPPC is contributed unless higher contribution required by MRC. Additional amounts recorded in Regulatory Liability and used to offset subsequent years contributions.

(H), (I) Tracks the recovery of the initial prepaid.

(J), (K) Tracks differences in non-negative actual NPPC and contributions.

(L), (M) Tracks differences in NPPC in Rates and Actual NPPC.

(N), (O) Tracks pension incomes (negative Actual NPPC).

NPV Year 1 is the present value at the beginning of year 1 of the relevant column information discounted at 9%.

In any given year the Cumulative NPPC in Rates should equal the Cumulative contributions plus recovered prepaid less Cumulative Regulatory Assets less Cumulative Regulatory Liabilities.

Table A-9
HELCO
MRC Funding Policy
More Favorable Economic Assumptions

Rate		NPPC In Rates			Actual	Contribution		Prepaid Pension Asset		Regulatory Asset		Regulatory Liability 1		Regulatory Liability 2		
Year	Description	Base	Prepaid	Cum.	NPPC	Current	Cum.	Current	Cum.	Current	Cum.	Current	Cum.	Current	Cum.	Rev Req
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
Y	Initial				2,744				12,771							6,306
	Year 1	2,744	2,554	5,298	2,700	-	-	(2,554)	10,217	(2,700)	(2,700)	(44)	(44)	-	-	6,306
	Year 2	2,744	2,554	10,596	2,200	-	-	(2,554)	7,663	(2,200)	(4,900)	(544)	(588)	-	-	6,306
	Year 3	2,744	2,554	15,894	2,100	-	-	(2,554)	5,109	(2,100)	(7,000)	(644)	(1,232)	-	-	6,306
	Year 4	2,744	2,554	21,192	2,100	-	-	(2,554)	2,555	(2,100)	(9,100)	(644)	(1,876)	-	-	6,306
Y	Year 5	2,744	2,554	26,490	1,900	-	-	(2,554)	1	(1,900)	(11,000)	(844)	(2,720)	-	-	(327)
	Year 6	-	-	26,490	2,100	-	-	-	1	(2,100)	(13,100)	2,100	(620)	-	-	(327)
	Year 7	-	-	26,490	2,300	-	-	-	1	(2,300)	(15,400)	2,300	1,680	-	-	(327)
	Year 8	-	-	26,490	2,500	1,000	1,000	-	1	(1,500)	(16,900)	2,500	4,180	-	-	(327)
	Year 9	-	-	26,490	2,600	1,300	2,300	-	1	(1,300)	(18,200)	2,600	6,780	-	-	(327)
Y	Year 10	-	-	26,490	2,700	1,400	3,700	-	1	(1,300)	(19,500)	2,700	9,480	-	-	158
	Total	**13,720**	**12,770**		**23,200**	**3,700**		**(12,770)**								**23,747**
	NPV Year 1	**10,673**	**9,934**		**14,776**	**1,692**		**(9,934)**								**19,595**

Comments:
Assumptions

Discount Rate for NPPC	6.50%
Expected Asset Return for NPPC	8.50%
Actual Asset Return	9.50%
Target Liability Discount Rate for MRC	6.50%

(B) In the year following a rate year, the NPPC in Rates is the rate year Actual NPPC (E) plus the sum of Cumulative Regulatory Assets (K) and Cumulative Regulatory Liability 1 (M) divided by 5.

(C) Recovery of initial prepaid (cumulative net benefit to ratepayers at initial year) through NPPC in Rates.

(F) Actual NPPC is contributed unless higher contribution required by MRC. Additional amounts recorded in Regulatory Liability and used to offset subsequent years contributions.

(H), (I) Tracks the recovery of the initial prepaid.

(J), (K) Tracks differences in non-negative actual NPPC and contributions.

(L), (M) Tracks differences in NPPC in Rates and Actual NPPC.

(N), (O) Tracks pension incomes (negative Actual NPPC).

NPV Year 1 is the present value at the beginning of year 1 of the relevant column information discounted at 9%.

In any given year the Cumulative NPPC in Rates should equal the Cumulative contributions plus recovered prepaid less Cumulative Regulatory Assets less Cumulative Regulatory Liabilities.

Table A-10
HECO
NPPC Funding Policy
Baseline Economic Assumptions

Rate Year	Description	NPPC In Rates			Actual	Contribution		Prepaid Pension Asset		Regulatory Asset		Regulatory Liability 1		Regulatory Liability 2		
		Base	Prepaid	Cumulative	NPPC	Current	Cumulative	Current	Cumulative	Current	Cumulative	Current	Cumulative	Current	Cumulative	Rev Req
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
Y	Initial				18,400				49,860							31,067
	Year 1	18,400	9,972	28,372	15,600	15,600	15,600	(9,972)	39,888	-	-	(2,800)	(2,800)	-	-	31,067
	Year 2	18,400	9,972	56,744	14,000	14,000	29,600	(9,972)	29,916	-	-	(4,400)	(7,200)	-	-	31,067
	Year 3	18,400	9,972	85,116	12,700	12,700	42,300	(9,972)	19,944	-	-	(5,700)	(12,900)	-	-	31,067
	Year 4	18,400	9,972	113,488	11,200	11,200	53,500	(9,972)	9,972	-	-	(7,200)	(20,100)	-	-	31,067
Y	Year 5	18,400	9,972	141,860	10,800	10,800	64,300	(9,972)	-	-	-	(7,600)	(27,700)	-	-	7,231
	Year 6	5,260	-	147,120	10,500	10,500	74,800	-	-	-	-	5,240	(22,460)	-	-	7,231
	Year 7	5,260	-	152,380	10,700	10,700	85,500	-	-	-	-	5,440	(17,020)	-	-	7,231
	Year 8	5,260	-	157,640	10,500	10,500	96,000	-	-	-	-	5,240	(11,780)	-	-	7,231
	Year 9	5,260	-	162,900	10,300	10,300	106,300	-	-	-	-	5,040	(6,740)	-	-	7,231
	Year 10															
	Total	**113,040**			**106,300**	**106,300**										**160,423**
	NPV Year 1	**82,645**	**38,788**		**72,982**	**72,982**		**(38,788)**								**120,674**

Comments:

Assumptions

Discount Rate for NPPC	6.00%
Expected Asset Return for NPPC	8.50%
Actual Asset Return	8.50%
Target Liability Discount Rate for MRC	6.00%

(B) In the year following a rate year, the NPPC in Rates is the rate year Actual NPPC (E) plus the sum of Cumulative Regulatory Assets (K) and Cumulative Regulatory Liability 1 (M) divided by 5.

(C) Recovery of initial prepaid (cumulative net benefit to ratepayers at initial year) through NPPC in Rates.

(F) Actual NPPC is contributed unless higher contribution required by MRC. Additional amounts recorded in Regulatory Liability and used to offset subsequent years contributions.

(H), (I) Tracks the recovery of the initial prepaid.

(J), (K) Tracks differences in non-negative actual NPPC and contributions.

(L), (M) Tracks differences in NPPC in Rates and Actual NPPC.

(N), (O) Tracks pension incomes (negative Actual NPPC).

NPV Year 1 is the present value at the beginning of year 1 of the relevant column information discounted at 9%.

In any given year the Cumulative NPPC in Rates should equal the Cumulative contributions plus recovered prepaid less Cumulative Regulatory Assets less Cumulative Regulatory Liabilities.

Table A-11
HECO
MRC Funding Policy
Baseline Economic Assumptions

Rate Year	Description (A)	NPPC In Rates Base (B)	NPPC In Rates Prepaid (C)	NPPC In Rates Cumulative (D)	Actual NPPC (E)	Contribution Current (F)	Contribution Cumulative (G)	Prepaid Pension Asset Current (H)	Prepaid Pension Asset Cumulative (I)	Regulatory Asset Current (J)	Regulatory Asset Cumulative (K)	Regulatory Liability 1 Current (L)	Regulatory Liability 1 Cumulative (M)	Regulatory Liability 2 Current (N)	Regulatory Liability 2 Cumulative (O)	Rev Req (P)
Y	Initial				18,400				49,860							31,067
	Year 1	18,400	9,972	28,372	16,100	-	-	(9,972)	39,888	(16,100)	(16,100)	(2,300)	(2,300)	-	-	31,067
	Year 2	18,400	9,972	56,744	16,000	-	-	(9,972)	29,916	(16,000)	(32,100)	(2,400)	(4,700)	-	-	31,067
	Year 3	18,400	9,972	85,116	16,000	16,000	16,000	(9,972)	19,944	-	(32,100)	(2,400)	(7,100)	-	-	31,067
	Year 4	18,400	9,972	113,488	14,300	28,400	44,400	(9,972)	9,972	14,100	(18,000)	(4,100)	(11,200)	-	-	31,067
Y	Year 5	18,400	9,972	141,860	12,900	19,600	64,000	(9,972)	-	6,700	(11,300)	(5,500)	(16,700)	-	-	8,424
	Year 6	7,300	-	149,160	12,500	13,300	77,300	-	-	800	(10,500)	5,200	(11,500)	-	-	8,424
	Year 7	7,300	-	156,460	13,300	13,800	91,100	-	-	500	(10,000)	6,000	(5,500)	-	-	8,424
	Year 8	7,300	-	163,760	13,100	14,700	105,800	-	-	1,600	(8,400)	5,800	300	-	-	8,424
	Year 9	7,300	-	171,060	12,800	15,300	121,100	-	-	2,500	(5,900)	5,500	5,800	-	-	8,424
	Year 10															
	Total	**121,200**			**127,000**	**121,100**										**166,388**
	NPV Year 1	**66,940**	**38,788**		**86,304**	**75,114**		**(38,788)**								**123,861**

Comments:
Assumptions

Discount Rate for NPPC	6.00%
Expected Asset Return for NPPC	8.50%
Actual Asset Return	8.50%
Target Liability Discount Rate for MRC	6.00%

(B) In the year following a rate year, the NPPC in Rates is the rate year Actual NPPC (E) plus the sum of Cumulative Regulatory Assets (K) and Cumulative Regulatory Liability 1 (M) divided by 5.

(C) Recovery of initial prepaid (cumulative net benefit to ratepayers at initial year) through NPPC in Rates.

(F) Actual NPPC is contributed unless higher contribution required by MRC. Additional amounts recorded in Regulatory Liability and used to offset subsequent years contributions.

(H), (I) Tracks the recovery of the initial prepaid.

(J), (K) Tracks differences in non-negative actual NPPC and contributions.

(L), (M) Tracks differences in NPPC in Rates and Actual NPPC.

(N), (O) Tracks pension incomes (negative Actual NPPC).

NPV Year 1 is the present value at the beginning of year 1 of the relevant column information discounted at 9%.

In any given year the Cumulative NPPC in Rates should equal the Cumulative contributions plus recovered prepaid less Cumulative Regulatory Assets less Cumulative Regulatory Liabilities.

Table A-12
HECO
NPPC Funding Policy
Less Favorable Economic Assumptions

Rate Year	Description	NPPC in Rates			Actual	Contribution		Prepaid Pension Asset		Regulatory Asset		Regulatory Liability 1		Regulatory Liability 2		
		Base	Prepaid	Cumulative	NPPC	Current	Cumulative	Current	Cumulative	Current	Cumulative	Current	Cumulative	Current	Cumulative	Rev Req
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
Y	Initial				18,400				49,860							31,067
	Year 1	18,400	9,972	28,372	20,300	20,300	20,300	(9,972)	39,888	-	-	1,900	1,900	-	-	31,067
	Year 2	18,400	9,972	56,744	19,100	19,100	39,400	(9,972)	29,916	-	-	700	2,600	-	-	31,067
	Year 3	18,400	9,972	85,116	18,900	18,900	58,300	(9,972)	19,944	-	-	500	3,100	-	-	31,067
	Year 4	18,400	9,972	113,488	19,000	19,000	77,300	(9,972)	9,972	-	-	600	3,700	-	-	31,067
Y	Year 5	18,400	9,972	141,860	19,700	25,500	102,800	(9,972)	-	5,800	5,800	1,300	5,000	-	-	23,471
	Year 6	21,860	-	163,720	19,700	48,500	151,300	-	-	28,800	34,600	(2,160)	2,840	-	-	23,471
	Year 7	21,860	-	185,580	19,300	50,000	201,300	-	-	30,700	65,300	(2,560)	280	-	-	23,471
	Year 8	21,860	-	207,440	18,300	51,400	252,700	-	-	33,100	98,400	(3,560)	(3,280)	-	-	23,471
	Year 9	21,860	-	229,300	17,100	52,600	305,300	-	-	35,500	133,900	(4,760)	(8,040)	-	-	23,471
	Year 10															
	Total	**179,440**			**171,400**	**305,300**										**241,623**
	NPV Year 1	**117,598**	**38,788**		**114,920**	**185,613**		**(38,788)**								**165,323**

Comments:

Assumptions

Discount Rate for NPPC	5.50%
Expected Asset Return for NPPC	8.50%
Actual Asset Return	6.00%
Target Liability Discount Rate for MRC	5.50%

(B) In the year following a rate year, the NPPC in Rates is the rate year Actual NPPC (E) plus the sum of Cumulative Regulatory Assets (K) and Cumulative Regulatory Liability 1 (M) divided by 5.

(C) Recovery of initial prepaid (cumulative net benefit to ratepayers at initial year) through NPPC in Rates.

(F) Actual NPPC is contributed unless higher contribution required by MRC. Additional amounts recorded in Regulatory Liability and used to offset subsequent years contributions.

(H), (I) Tracks the recovery of the initial prepaid.

(J), (K) Tracks differences in non-negative actual NPPC and contributions.

(L), (M) Tracks differences in NPPC in Rates and Actual NPPC.

(N), (O) Tracks pension incomes (negative Actual NPPC).

NPV Year 1 is the present value at the beginning of year 1 of the relevant column information discounted at 9%.

In any given year the Cumulative NPPC in Rates should equal the Cumulative contributions plus recovered prepaid less Cumulative Regulatory Assets less Cumulative Regulatory Liabilities.

Table A-13
HECO
MRC Funding Policy
Less Favorable Economic Assumptions

Rate		NPPC In Rates			Actual	Contribution		Prepaid Pension Asset		Regulatory Asset		Regulatory Liability 1		Regulatory Liability 2		
Year	Description	Base	Prepaid	Cumulative	NPPC	Current	Cumulative	Current	Cumulative	Current	Cumulative	Current	Cumulative	Current	Cumulative	Rev Req
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
Y	Initial				18,400				49,860							31,067
	Year 1	18,400	9,972	28,372	20,800	-	-	(9,972)	39,888	(20,800)	(20,800)	2,400	2,400	-	-	31,067
	Year 2	18,400	9,972	58,744	21,600	12,400	12,400	(9,972)	29,916	(9,200)	(30,000)	3,200	5,600	-	-	31,067
	Year 3	18,400	9,972	85,116	21,800	43,400	55,800	(9,972)	19,944	21,600	(8,400)	3,400	9,000	-	-	31,067
	Year 4	18,400	9,972	113,488	19,700	44,900	100,700	(9,972)	9,972	25,200	16,800	1,300	10,300	-	-	31,067
Y	Year 5	18,400	9,972	141,860	19,000	46,300	147,000	(9,972)	-	27,300	44,100	600	10,900	-	-	33,178
	Year 6	30,000	-	171,860	18,200	47,600	194,600	-	-	29,400	73,500	(11,800)	(900)	-	-	33,178
	Year 7	30,000	-	201,860	17,700	49,000	243,600	-	-	31,300	104,800	(12,300)	(13,200)	-	-	33,178
	Year 8	30,000	-	231,860	16,700	50,400	294,000	-	-	33,700	138,500	(13,300)	(26,500)	-	-	33,178
	Year 9	30,000	-	261,860	16,100	26,800	320,800	-	-	10,700	149,200	(13,900)	(40,400)	-	-	33,178
	Year 10															
	Total	**212,000**			**171,600**	**320,800**										**290,158**
	NPV Year 1	**134,737**	**38,788**		**116,730**	**198,670**		**(38,788)**								**192,071**

Comments:

Assumptions

Discount Rate for NPPC	5.50%
Expected Asset Return for NPPC	8.50%
Actual Asset Return	6.00%
Target Liability Discount Rate for MRC	5.50%

(B) In the year following a rate year, the NPPC in Rates is the rate year Actual NPPC (E) plus the sum of Cumulative Regulatory Assets (K) and Cumulative Regulatory Liability 1 (M) divided by 5.

(C) Recovery of initial prepaid (cumulative net benefit to ratepayers at initial year) through NPPC in Rates.

(F) Actual NPPC is contributed unless higher contribution required by MRC. Additional amounts recorded in Regulatory Liability and used to offset subsequent years contributions.

(H), (I) Tracks the recovery of the initial prepaid.

(J), (K) Tracks differences in non-negative actual NPPC and contributions.

(L), (M) Tracks differences in NPPC in Rates and Actual NPPC.

(N), (O) Tracks pension incomes (negative Actual NPPC).

NPV Year 1 is the present value at the beginning of year 1 of the relevant column information discounted at 9%.

In any given year the Cumulative NPPC in Rates should equal the Cumulative contributions plus recovered prepaid less Cumulative Regulatory Assets less Cumulative Regulatory Liabilities.

Table A-14
HECO
NPPC Funding Policy
More Favorable Economic Assumptions

Rate		NPPC In Rates			Actual	Contribution		Prepaid Pension Asset		Regulatory Asset		Regulatory Liability 1		Regulatory Liability 2		
Year	Description	Base	Prepaid	Cumulative	NPPC	Current	Cumulative	Current	Cumulative	Current	Cumulative	Current	Cumulative	Current	Cumulative	Rev Req
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
Y	Initial				18,400				49,860							31,067
	Year 1	18,400	9,972	28,372	11,700	11,700	11,700	(9,972)	39,888	-	-	(6,700)	(6,700)	-	-	31,067
	Year 2	18,400	9,972	56,744	10,100	10,100	21,800	(9,972)	29,916	-	-	(8,300)	(15,000)	-	-	31,067
	Year 3	18,400	9,972	85,116	8,600	8,600	30,400	(9,972)	19,944	-	-	(9,800)	(24,800)	-	-	31,067
	Year 4	18,400	9,972	113,488	6,900	6,900	37,300	(9,972)	9,972	-	-	(11,500)	(36,300)	-	-	31,067
Y	Year 5	18,400	9,972	141,860	6,500	6,500	43,800	(9,972)	-	-	-	(11,900)	(48,200)	-	-	1,287
	Year 6	-	-	141,860	6,300	6,300	50,100	-	-	-	-	6,300	(41,900)	-	-	1,287
	Year 7	-	-	141,860	6,500	6,500	56,600	-	-	-	-	6,500	(35,400)	-	-	1,287
	Year 8	-	-	141,860	6,200	6,200	62,800	-	-	-	-	6,200	(29,200)	-	-	1,287
	Year 9	-	-	141,860	5,800	5,800	68,600	-	-	-	-	5,800	(23,400)	-	-	1,287
	Year 10															
	Total	92,000			68,600	68,600										130,703
	NPV Year 1	71,570	38,788		48,083	48,083		(38,788)								104,195

Comments:

Assumptions

Discount Rate for NPPC	6.50%
Expected Asset Return for NPPC	8.50%
Actual Asset Return	9.50%
Target Liability Discount Rate for MRC	6.50%

(B) In the year following a rate year, the NPPC in Rates is the rate year Actual NPPC (E) plus the sum of Cumulative Regulatory Assets (K) and Cumulative Regulatory Liability 1 (M) divided by 5.

(C) Recovery of initial prepaid (cumulative net benefit to ratepayers at initial year) through NPPC in Rates.

(F) Actual NPPC is contributed unless higher contribution required by MRC. Additional amounts recorded in Regulatory Liability and used to offset subsequent years contributions.

(H), (I) Tracks the recovery of the initial prepaid.

(J), (K) Tracks differences in non-negative actual NPPC and contributions.

(L), (M) Tracks differences in NPPC in Rates and Actual NPPC.

(N), (O) Tracks pension incomes (negative Actual NPPC).

NPV Year 1 is the present value at the beginning of year 1 of the relevant column information discounted at 9%.

In any given year the Cumulative NPPC in Rates should equal the Cumulative contributions plus recovered prepaid less Cumulative Regulatory Assets less Cumulative Regulatory Liabilities.

Table A-15
HECO
MRC Funding Policy
More Favorable Economic Assumptions

Rate Year	Description (A)	NPPC In Rates Base (B)	NPPC In Rates Prepaid (C)	NPPC In Rates Cumulative (D)	Actual NPPC (E)	Contribution Current (F)	Contribution Cumulative (G)	Prepaid Pension Asset Current (H)	Prepaid Pension Asset Cumulative (I)	Regulatory Asset Current (J)	Regulatory Asset Cumulative (K)	Regulatory Liability 1 Current (L)	Regulatory Liability 1 Cumulative (M)	Regulatory Liability 2 Current (N)	Regulatory Liability 2 Cumulative (O)	Rev Req (P)
Y	Initial				18,400				49,860							31,067
	Year 1	18,400	9,972	28,372	12,100	-	-	(9,972)	39,888	(12,100)	(12,100)	(6,300)	(6,300)	-	-	31,067
	Year 2	18,400	9,972	56,744	11,700	-	-	(9,972)	29,916	(11,700)	(23,800)	(6,700)	(13,000)	-	-	31,067
	Year 3	18,400	9,972	85,116	11,200	-	-	(9,972)	19,944	(11,200)	(35,000)	(7,200)	(20,200)	-	-	31,067
	Year 4	18,400	9,972	113,488	10,600	-	-	(9,972)	9,972	(10,600)	(45,600)	(7,800)	(28,000)	-	-	31,067
Y	Year 5	18,400	9,972	141,860	11,200	-	-	(9,972)	-	(11,200)	(56,800)	(7,200)	(35,200)	-	-	(2,531)
	Year 6	-	-	141,860	12,000	-	-	-	-	(12,000)	(68,800)	12,000	(23,200)	-	-	(2,531)
	Year 7	-	-	141,860	13,300	4,200	4,200	-	-	(9,100)	(77,900)	13,300	(9,900)	-	-	(2,531)
	Year 8	-	-	141,860	14,100	8,300	12,500	-	-	(5,800)	(83,700)	14,100	4,200	-	-	(2,531)
	Year 9	-	-	141,860	14,500	8,900	21,400	-	-	(5,600)	(89,300)	14,500	18,700	-	-	(2,531)
	Year 10															
	Total	92,000			110,700	21,400										111,613
	NPV Year 1	71,570	38,788		72,569	10,561		(38,788)								93,674

Comments:

Assumptions

Discount Rate for NPPC	6.50%
Expected Asset Return for NPPC	8.50%
Actual Asset Return	9.50%
Target Liability Discount Rate for MRC	6.50%

(B) In the year following a rate year, the NPPC in Rates is the rate year Actual NPPC (E) plus the sum of Cumulative Regulatory Assets (K) and Cumulative Regulatory Liability 1 (M) divided by 5.

(C) Recovery of initial prepaid (cumulative net benefit to ratepayers at initial year) through NPPC in Rates.

(F) Actual NPPC is contributed unless higher contribution required by MRC. Additional amounts recorded in Regulatory Liability and used to offset subsequent years contributions.

(H), (I) Tracks the recovery of the initial prepaid.

(J), (K) Tracks differences in non-negative actual NPPC and contributions.

(L), (M) Tracks differences in NPPC in Rates and Actual NPPC.

(N), (O) Tracks pension incomes (negative Actual NPPC).

NPV Year 1 is the present value at the beginning of year 1 of the relevant column information discounted at 9%.

In any given year the Cumulative NPPC in Rates should equal the Cumulative contributions plus recovered prepaid less Cumulative Regulatory Assets less Cumulative Regulatory Liabilities.

Table A-16
MECO
NPPC Funding Policy
Baseline Economic Assumptions

Rate Year	Description	NPPC In Rates			Actual NPPC	Contribution		Prepaid Pension Asset		Regulatory Asset		Regulatory Liability 1		Regulatory Liability 2		Rev Req
		Base	Prepaid	Cumulative		Current	Cumulative	Current	Cumulative	Current	Cumulative	Current	Cumulative	Current	Cumulative	
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
Y	Initial				3,900				1,323							3,685
	Year 1	3,900	265	4,165	3,500	3,500	3,500	(265)	1,058	-	-	(400)	(400)	-	-	3,685
	Year 2	3,900	265	8,330	3,200	3,200	6,700	(265)	793	-	-	(700)	(1,100)	-	-	3,685
	Year 3	3,900	265	12,495	3,000	3,000	9,700	(265)	528	-	-	(900)	(2,000)	-	-	3,685
	Year 4	3,900	265	16,660	2,700	2,700	12,400	(265)	263	-	-	(1,200)	(3,200)	-	-	3,685
Y	Year 5	3,900	265	20,825	2,500	2,600	15,000	(265)	(2)	100	100	(1,400)	(4,600)	-	-	1,949
	Year 6	1,600	-	22,425	2,400	2,400	17,400	-	(2)	-	100	800	(3,800)	-	-	1,949
	Year 7	1,600	-	24,025	2,300	3,000	20,400	-	(2)	700	800	700	(3,100)	-	-	1,949
	Year 8	1,600	-	25,625	2,400	3,000	23,400	-	(2)	600	1,400	800	(2,300)	-	-	1,949
	Year 9	1,600	-	27,225	2,400	3,200	26,600	-	(2)	800	2,200	800	(1,500)	-	-	1,949
	Year 10															
	Total	**25,900**			**24,400**	**26,600**										**24,485**
	NPV Year 1	**18,539**	**1,031**		**16,757**	**17,876**		**(1,031)**								**17,309**

Comments:

Assumptions

Discount Rate for NPPC	6.00%
Expected Asset Return for NPPC	8.50%
Actual Asset Return	8.50%
Target Liability Discount Rate for MRC	6.00%

(B) In the year following a rate year, the NPPC in Rates is the rate year Actual NPPC (E) plus the sum of Cumulative Regulatory Assets (K) and Cumulative Regulatory Liability 1 (M) divided by 5.

(C) Recovery of initial prepaid (cumulative net benefit to ratepayers at initial year) through NPPC in Rates.

(F) Actual NPPC is contributed unless higher contribution required by MRC. Additional amounts recorded in Regulatory Liability and used to offset subsequent years contributions.

(H), (I) Tracks the recovery of the initial prepaid.

(J), (K) Tracks differences in non-negative actual NPPC and contributions.

(L), (M) Tracks differences in NPPC in Rates and Actual NPPC.

(N), (O) Tracks pension incomes (negative Actual NPPC).

NPV Year 1 is the present value at the beginning of year 1 of the relevant column information discounted at 9%.

In any given year the Cumulative NPPC in Rates should equal the Cumulative contributions plus recovered prepaid less Cumulative Regulatory Assets less Cumulative Regulatory Liabilities.

Table A-17
MECO
MRC Funding Policy
Baseline Economic Assumptions

Rate Year	Description	NPPC In Rates			Actual	Contribution		Prepaid Pension Asset		Regulatory Asset		Regulatory Liability 1		Regulatory Liability 2		
	Description	Base	Prepaid	Cumulative	NPPC	Current	Cumulative	Current	Cumulative	Current	Cumulative	Current	Cumulative	Current	Cumulative	Rev Req
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
Y	Initial				3,900				1,323							3,685
	Year 1	3,900	265	4,165	3,600	-	-	(265)	1,058	(3,600)	(3,600)	(300)	(300)	-	-	3,685
	Year 2	3,900	265	8,330	3,600	1,000	1,000	(265)	793	(2,600)	(6,200)	(300)	(600)	-	-	3,685
	Year 3	3,900	265	12,495	3,500	6,600	7,600	(265)	528	3,100	(3,100)	(400)	(1,000)	-	-	3,685
	Year 4	3,900	265	16,660	3,100	6,400	14,000	(265)	263	3,300	200	(800)	(1,800)	-	-	3,685
Y	Year 5	3,900	265	20,825	2,600	5,800	19,800	(265)	(2)	3,200	3,400	(1,300)	(3,100)	-	-	3,100
	Year 6	2,660	-	23,485	2,400	3,100	22,900	-	(2)	700	4,100	(260)	(3,360)	-	-	3,100
	Year 7	2,660	-	26,145	2,500	3,000	25,900	-	(2)	500	4,600	(160)	(3,520)	-	-	3,100
	Year 8	2,660	-	28,805	2,400	3,100	29,000	-	(2)	700	5,300	(260)	(3,780)	-	-	3,100
	Year 9	2,660	-	31,465	2,400	3,200	32,200	-	(2)	800	6,100	(260)	(4,040)	-	-	3,100
	Year 10															
	Total	**30,140**			**26,100**	**32,200**										**30,240**
	NPV Year 1	**20,771**	**1,031**		**18,030**	**20,760**		**(1,031)**								**20,481**

Comments:
Assumptions

Discount Rate for NPPC	6.00%
Expected Asset Return for NPPC	8.50%
Actual Asset Return	8.50%
Target Liability Discount Rate for MRC	6.00%

(B) In the year following a rate year, the NPPC in Rates is the rate year Actual NPPC (E) plus the sum of Cumulative Regulatory Assets (K) and Cumulative Regulatory Liability 1 (M) divided by 5.

(C) Recovery of initial prepaid (cumulative net benefit to ratepayers at initial year) through NPPC in Rates.

(F) Actual NPPC is contributed unless higher contribution required by MRC. Additional amounts recorded in Regulatory Liability and used to offset subsequent years contributions.

(H), (I) Tracks the recovery of the initial prepaid.

(J), (K) Tracks differences in non-negative actual NPPC and contributions.

(L), (M) Tracks differences in NPPC in Rates and Actual NPPC.

(N), (O) Tracks pension incomes (negative Actual NPPC).

NPV Year 1 is the present value at the beginning of year 1 of the relevant column information discounted at 9%.

In any given year the Cumulative NPPC in Rates should equal the Cumulative contributions plus recovered prepaid less Cumulative Regulatory Assets less Cumulative Regulatory Liabilities.

Table A-18
MECO
NPPC Funding Policy
Less Favorable Economic Assumptions

Rate		NPPC In Rates			Actual	Contribution		Prepaid Pension Asset		Regulatory Asset		Regulatory Liability 1		Regulatory Liability 2		
Year	Description	Base	Prepaid	Cumulative	NPPC	Current	Cumulative	Current	Cumulative	Current	Cumulative	Current	Cumulative	Current	Cumulative	Rev Req
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
Y	Initial				3,900				1,323							3,685
	Year 1	3,900	265	4,165	4,400	4,400	4,400	(265)	1,058	-	-	500	500	-	-	3,685
	Year 2	3,900	265	8,330	4,300	4,300	8,700	(265)	793	-	-	400	900	-	-	3,685
	Year 3	3,900	265	12,495	4,200	4,200	12,900	(265)	528	-	-	300	1,200	-	-	3,685
	Year 4	3,900	265	16,660	4,200	4,200	17,100	(265)	263	-	-	300	1,500	-	-	3,685
Y	Year 5	3,900	265	20,825	4,100	7,300	24,400	(265)	(2)	3,200	3,200	200	1,700	-	-	5,402
	Year 6	5,080	-	25,905	3,900	9,900	34,300	-	(2)	6,000	9,200	(1,180)	520	-	-	5,402
	Year 7	5,080	-	30,985	3,800	10,100	44,400	-	(2)	6,300	15,500	(1,280)	(760)	-	-	5,402
	Year 8	5,080	-	36,065	3,500	10,400	54,800	-	(2)	6,900	22,400	(1,580)	(2,340)	-	-	5,402
	Year 9	5,080	-	41,145	3,300	10,600	65,400	-	(2)	7,300	29,700	(1,780)	(4,120)	-	-	5,402
	Year 10															
	Total	**39,820**			**36,700**	**65,400**										**41,750**
	NPV Year 1	**25,866**	**1,031**		**24,219**	**40,147**		**(1,031)**								**26,824**

Comments:

Assumptions

Discount Rate for NPPC	5.50%
Expected Asset Return for NPPC	8.50%
Actual Asset Return	6.00%
Target Liability Discount Rate for MRC	5.50%

(B) In the year following a rate year, the NPPC In Rates is the rate year Actual NPPC (E) plus the sum of Cumulative Regulatory Assets (K) and Cumulative Regulatory Liability 1 (M) divided by 5.

(C) Recovery of initial prepaid (cumulative net benefit to ratepayers at initial year) through NPPC in Rates.

(F) Actual NPPC is contributed unless higher contribution required by MRC. Additional amounts recorded in Regulatory Liability and used to offset subsequent years contributions.

(H), (I) Tracks the recovery of the initial prepaid.

(J), (K) Tracks differences in non-negative actual NPPC and contributions.

(L), (M) Tracks differences in NPPC in Rates and Actual NPPC.

(N), (O) Tracks pension incomes (negative Actual NPPC).

NPV Year 1 is the present value at the beginning of year 1 of the relevant column information discounted at 9%.

In any given year the Cumulative NPPC in Rates should equal the Cumulative contributions plus recovered prepaid less Cumulative Regulatory Assets less Cumulative Regulatory Liabilities.

Table A-19
MECO
MRC Funding Policy
Less Favorable Economic Assumptions

Rate		NPPC In Rates			Actual	Contribution		Prepaid Pension Asset		Regulatory Asset		Regulatory Liability 1		Regulatory Liability 2		
Year	Description	Base	Prepaid	Cumulative	NPPC	Current	Cumulative	Current	Cumulative	Current	Cumulative	Current	Cumulative	Current	Cumulative	Rev Req
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
Y	Initial				3,900				1,323							3,685
	Year 1	3,900	265	4,165	4,600	-	-	(265)	1,058	(4,600)	(4,600)	700	700	-	-	3,685
	Year 2	3,900	265	8,330	4,600	8,200	8,200	(265)	793	3,600	(1,000)	700	1,400	-	-	3,685
	Year 3	3,900	265	12,495	4,300	9,000	17,200	(265)	528	4,700	3,700	400	1,800	-	-	3,685
	Year 4	3,900	265	16,660	3,900	9,200	26,400	(265)	263	5,300	9,000	-	1,800	-	-	3,685
Y	Year 5	3,900	265	20,825	3,600	9,400	35,800	(265)	(2)	5,800	14,800	(300)	1,500	-	-	7,804
	Year 6	6,860	-	27,685	3,300	9,600	45,400	-	(2)	6,300	21,100	(3,560)	(2,060)	-	-	7,804
	Year 7	6,860	-	34,545	3,200	9,700	55,100	-	(2)	6,500	27,600	(3,660)	(5,720)	-	-	7,804
	Year 8	6,860	-	41,405	3,000	5,700	60,800	-	(2)	2,700	30,300	(3,860)	(9,580)	-	-	7,804
	Year 9	6,860	-	48,265	3,300	7,100	67,900	-	(2)	3,800	34,100	(3,560)	(13,140)	-	-	7,804
	Year 10															
	Total	**48,940**			**33,800**	**67,900**										**53,760**
	NPV Year 1	**29,614**	**1,031**		**23,258**	**43,638**		**(1,031)**								**33,443**

Comments:
Assumptions

Discount Rate for NPPC	5.50%
Expected Asset Return for NPPC	8.50%
Actual Asset Return	6.00%
Target Liability Discount Rate for MRC	5.50%

(B) In the year following a rate year, the NPPC in Rates is the rate year Actual NPPC (E) plus the sum of Cumulative Regulatory Assets (K) and Cumulative Regulatory Liability 1 (M) divided by 5.

(C) Recovery of initial prepaid (cumulative net benefit to ratepayers at initial year) through NPPC in Rates.

(F) Actual NPPC is contributed unless higher contribution required by MRC. Additional amounts recorded in Regulatory Liability and used to offset subsequent years contributions.

(H), (I) Tracks the recovery of the initial prepaid.

(J), (K) Tracks differences in non-negative actual NPPC and contributions.

(L), (M) Tracks differences in NPPC in Rates and Actual NPPC.

(N), (O) Tracks pension incomes (negative Actual NPPC).

NPV Year 1 is the present value at the beginning of year 1 of the relevant column information discounted at 9%.

In any given year the Cumulative NPPC in Rates should equal the Cumulative contributions plus recovered prepaid less Cumulative Regulatory Assets less Cumulative Regulatory Liabilities.

Table A-20
MECO
NPPC Funding Policy
More Favorable Economic Assumptions

Rate Year	Description	NPPC In Rates Base	NPPC In Rates Prepaid	NPPC In Rates Cumulative	Actual NPPC	Contribution Current	Contribution Cumulative	Prepaid Pension Asset Current	Prepaid Pension Asset Cumulative	Regulatory Asset Current	Regulatory Asset Cumulative	Regulatory Liability 1 Current	Regulatory Liability 1 Cumulative	Regulatory Liability 2 Current	Regulatory Liability 2 Cumulative	Rev Req
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
Y	Initial				3,900				1,323							3,685
	Year 1	3,900	265	4,165	2,600	2,600	2,600	(265)	1,058	-	-	(1,300)	(1,300)	-	-	3,685
	Year 2	3,900	265	8,330	2,400	2,400	5,000	(265)	793	-	-	(1,500)	(2,800)	-	-	3,685
	Year 3	3,900	265	12,495	2,200	2,200	7,200	(265)	528	-	-	(1,700)	(4,500)	-	-	3,685
	Year 4	3,900	265	16,660	2,100	2,100	9,300	(265)	263	-	-	(1,800)	(6,300)	-	-	3,685
Y	Year 5	3,900	265	20,825	2,000	2,000	11,300	(265)	(2)	-	-	(1,900)	(8,200)	-	-	635
	Year 6	360	-	21,185	1,900	1,900	13,200	-	(2)	-	-	1,540	(6,660)	-	-	635
	Year 7	360	-	21,545	1,900	1,900	15,100	-	(2)	-	-	1,540	(5,120)	-	-	635
	Year 8	360	-	21,905	1,800	1,800	16,900	-	(2)	-	-	1,440	(3,680)	-	-	635
	Year 9	360	-	22,265	1,800	1,800	18,700	-	(2)	-	-	1,440	(2,240)	-	-	635
	Year 10															
	Total	**20,940**			**18,700**	**18,700**										**17,916**
	NPV Year 1	**15,928**	**1,031**		**12,796**	**12,796**		**(1,031)**								**13,688**

Comments:

Assumptions

Discount Rate for NPPC	6.50%
Expected Asset Return for NPPC	8.50%
Actual Asset Return	9.50%
Target Liability Discount Rate for MRC	6.50%

(B) In the year following a rate year, the NPPC in Rates is the rate year Actual NPPC (E) plus the sum of Cumulative Regulatory Assets (K) and Cumulative Regulatory Liability 1 (M) divided by 5.

(C) Recovery of initial prepaid (cumulative net benefit to ratepayers at initial year) through NPPC in Rates.

(F) Actual NPPC is contributed unless higher contribution required by MRC. Additional amounts recorded in Regulatory Liability and used to offset subsequent years contributions.

(H), (I) Tracks the recovery of the initial prepaid.

(J), (K) Tracks differences in non-negative actual NPPC and contributions.

(L), (M) Tracks differences in NPPC in Rates and Actual NPPC.

(N), (O) Tracks pension incomes (negative Actual NPPC).

NPV Year 1 is the present value at the beginning of year 1 of the relevant column information discounted at 9%.

In any given year the Cumulative NPPC in Rates should equal the Cumulative contributions plus recovered prepaid less Cumulative Regulatory Assets less Cumulative Regulatory Liabilities.

Table A-21
MECO
MRC Funding Policy
More Favorable Economic Assumptions

Rate Year	Description	NPPC In Rates Base	NPPC In Rates Prepaid	NPPC In Rates Cumulative	Actual NPPC	Contribution Current	Contribution Cumulative	Prepaid Pension Asset Current	Prepaid Pension Asset Cumulative	Regulatory Asset Current	Regulatory Asset Cumulative	Regulatory Liability 1 Current	Regulatory Liability 1 Cumulative	Regulatory Liability 2 Current	Regulatory Liability 2 Cumulative	Rev Req
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	(P)
Y	Initial				3,900				1,323							3,685
	Year 1	3,900	265	4,165	2,700	-	-	(265)	1,058	(2,700)	(2,700)	(1,200)	(1,200)	-	-	3,685
	Year 2	3,900	265	8,330	2,700	-	-	(265)	793	(2,700)	(5,400)	(1,200)	(2,400)	-	-	3,685
	Year 3	3,900	265	12,495	2,700	2,600	2,600	(265)	528	(100)	(5,500)	(1,200)	(3,600)	-	-	3,685
	Year 4	3,900	265	16,660	2,700	2,100	4,700	(265)	263	(600)	(6,100)	(1,200)	(4,800)	-	-	3,685
Y	Year 5	3,900	265	20,825	2,800	2,000	6,700	(265)	(2)	(800)	(6,900)	(1,100)	(5,900)	-	-	105
	Year 6	240	-	21,065	2,700	2,000	8,700	-	(2)	(700)	(7,600)	2,460	(3,440)	-	-	105
	Year 7	240	-	21,305	2,800	1,900	10,600	-	(2)	(900)	(8,500)	2,560	(880)	-	-	105
	Year 8	240	-	21,545	2,800	2,000	12,600	-	(2)	(800)	(9,300)	2,560	1,680	-	-	105
	Year 9	240	-	21,785	2,900	2,000	14,600	-	(2)	(900)	(10,200)	2,660	4,340	-	-	105
	Year 10															
	Total	**20,460**			**24,800**	**14,600**										**15,265**
	NPV Year 1	**15,675**	**1,031**		**16,449**	**8,952**		**(1,031)**								**12,228**

Comments:

Assumptions

Discount Rate for NPPC	6.50%
Expected Asset Return for NPPC	8.50%
Actual Asset Return	9.50%
Target Liability Discount Rate for MRC	6.50%

(B) In the year following a rate year, the NPPC In Rates is the rate year Actual NPPC (E) plus the sum of Cumulative Regulatory Assets (K) and Cumulative Regulatory Liability 1 (M) divided by 5.

(C) Recovery of initial prepaid (cumulative net benefit to ratepayers at initial year) through NPPC In Rates.

(F) Actual NPPC is contributed unless higher contribution required by MRC. Additional amounts recorded in Regulatory Liability and used to offset subsequent years contributions.

(H), (I) Tracks the recovery of the initial prepaid.

(J), (K) Tracks differences in non-negative actual NPPC and contributions.

(L), (M) Tracks differences in NPPC in Rates and Actual NPPC.

(N), (O) Tracks pension incomes (negative Actual NPPC).

NPV Year 1 is the present value at the beginning of year 1 of the relevant column information discounted at 8%.

In any given year the Cumulative NPPC in Rates should equal the Cumulative contributions plus recovered prepaid less Cumulative Regulatory Assets less Cumulative Regulatory Liabilities.

Appendix B

Overview of Legal and Tax Requirements to Consider in Developing a Pension Funding Policy

The evolution of funding requirements under the Internal Revenue Code and ERISA has led to a complex set of rules that have given employers a difficult time in maintaining a consistent long-term funding policy for sponsored pension plans. Since 2004, sponsors have been in the situation of waiting for rules to be published after the valuation date before a funding valuation could be performed. The latest change in pension funding rules is the Pension Protection Act of 2006 (PPA) which was signed into law on August 17, 2006. This latest law generally becomes effective January 1, 2008. Therefore, 2007 is the last valuation expected to be covered by the old regime.

Following is a high level overview of the pension funding rules. Although we are awaiting detailed guidance with regard to the PPA, details of the new funding rules as we currently understand them are discussed in a later section.

ERISA introduced specific rules for determining the minimum required contribution (MRC) and the maximum deductible limit for tax-qualified defined benefit pension plans. The initial framework was based on a long-term perspective assuming the sponsored pension plan would remain in operation indefinitely and should be funded on this basis. As such, plan obligations were discounted over the long-term to reflect the anticipated return of plan assets. Initial unfunded obligations, increases in obligations due to plan amendments and changes in funded status due to the experience of the plan were amortized over reasonably long periods. Plan sponsors were allowed to select from among several funding methodologies to reflect their long-term funding strategies. As a result, contribution patterns were designed to be fairly stable from year to year.

Title IV of ERISA created the Pension Benefit Guaranty Corporation (PBGC) in order to protect the pensions of participants in case of plan insolvency. The PBGC was exposed to greater financial risk as companies in select industries routinely negotiated benefit increases effective immediately that were funded over 30-year periods. In response to the increased risk a 1987 law was passed to accelerate the funding of some plans. The 1987 law introduced a measure of plan obligations referred to as "current liability" which was meant to represent the total value of accrued benefits earned by plan participants valued at current settlement rates. The IRS prescribed a range of permissible discount rates for purposes of calculating the current liability based on 30-year Treasury rates. The effect of the law was to accelerate funding of plan liabilities, on a sliding scale, that were unfunded on a current liability basis.

The Retirement Protection Act of 1994 (RPA '94) modified the current liability rules to establish a 90% of current liability funding target and mandated an aggressive schedule to achieve this funding target. These are sometimes referred to as deficit reduction contributions. A decline in asset values and increase in obligations due to decreasing discount rates during 2000 – 2002 created wild fluctuations in funding requirements as amortization of experience losses was required over a shorter period.

In 2006, the PPA created a new measure of liability that we will refer to as "target liability." The target liability is similar to the current liability measure. The PPA is designed to fund to 100% of target liability over seven years. Pension plans are restricted with regard to benefit distribution and amendments improving benefits if certain funding percentage targets are not maintained. Prior funding methodologies selected for the long-term are eliminated under the new law. The anticipated effect of the PPA is to accelerate the funding of all pension plans.

The maximum deductible limitation has evolved over time as well. Originally the deductible limit was based on a shorter amortization period than the MRC resulting in a relatively narrow range of contributions. In addition, the funding rules include a concept of full funding limitation when assets exceed accrued liabilities (calculated under selected funding methodology) to limit the deductible contribution. However, a special deductible limit was added to permit 100% funding of current liability. The PPA increases this limit to 150% of the current liability plus the value of the impact of anticipated salary increases on accrued pension benefits.

Understanding Pension Funding Rules

In order to better secure pension benefits for employees, ERISA requires tax-qualified defined benefit plans to prefund pension commitments through an irrevocable trust. In addition, ERISA established the Pension Benefit Guaranty Corporation (PBGC) to support pension promises in case of a plan's insolvency.

To protect the interest of the PBGC, additional funding requirements were added in 1987 by the Omnibus Budget Reconciliation Act of 1987 (OBRA '87) and again by the Retirement Protection Act of 1994 (RPA '94). Other changes and adjustments to the original funding rules have occurred over the years, the latest resulting from the Pension Protection Act of 2006 (PPA) which is an overhaul of the funding rules effective in 2008. Although details and interpretations of the new law are not yet available, this paper will present our current understanding of how the new rules will work.

The ultimate cost of a pension plan is the benefits paid plus expenses less investment earnings on contributions to the trust. IRS rules and regulations assign funding obligations to specific time periods. As the new funding rules of the PPA take effect January 1, 2008, this paper will focus on those rules rather then the pre-2008 rules currently in effect. The scope of this paper is not to make the reader an expert on pension funding rules, but rather provide a general background to assist in the understanding of funding levels required of pension plans.

An annual valuation is required to be performed by an enrolled actuary each year to develop a range of allowable contributions to a pension plan. In addition, the PPA requires the actuary to certify the funded status of a pension arrangement early in the year to determine if any restrictions will apply to the plan with regard to benefit payments or amendments improving benefits. A minimum contribution requirement is determined at a level intended to keep the plan solvent to protect participants and limit the PBGC's exposure to risk. A maximum deductible limit is included to prevent abuse of qualified tax advantages.

If the employer contributes less than the minimum required contribution for the year then a funding deficiency will exist and the plan sponsor is subject to a 10% excise tax applied to the deficiency. The excise tax increases to 100% if the deficiency is not corrected in a specified time period after the government informs the plan sponsor.

The maximum deductible limitation is important as the plan sponsor can make payments in a particular year and deduct the entire amount when determining corporate income tax. If the sponsor exceeds the deductible limit the deduction is not loss, but is deferred to a future year. However, contributions greater than the maximum tax deductible amount may be subject to a 10% excise tax.

Funding Rules under the PPA

Pension benefits accrue as defined by the plan document defining the benefit. The valuation helps determine an orderly funding progression for benefits accrued under the plan. For funding purposes, the valuation considers the value of benefits accrued as of the valuation date and benefits expected to accrue during the year. The liability associated with benefits accrued as of the valuation date will be referred to as the funding target liability. This is the value of the benefit based on service and pay up to the valuation date.

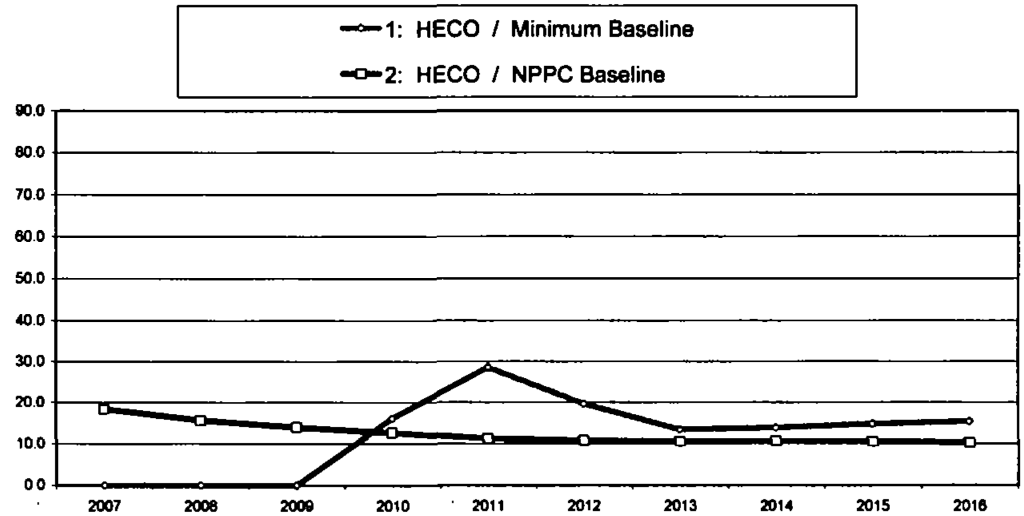
The funding target liability is based on a projected cash flow of accrued benefits discounted in accordance with a yield curve assumption mandated by the IRS. The cash flow projection reflects mandated mortality assumptions as well as other assumptions selected by the actuary to reflect the design of the plan and anticipated demographic experience of the covered participants. The excess of the funding target liability over plan assets is funded through a seven-year amortization.

In addition to the amortization of unfunded target liability the plan sponsor must contribute the value of benefits expected to accumulate during the valuation year. This accumulation reflects both the impact of an additional year of service plus the impact of current year's salary on past service benefits. This is the target liability normal cost. The sum of the amortization and the normal cost is the minimum required contribution.

The maximum deductible contribution is based on the relationship between assets and the sum of 150% of target liability, normal cost, and impact of anticipated salary increases. The maximum deductible limit is perceived to be well in excess of an amount needed to secure pension benefits; i.e., using the maximum deductible as a funding policy would be expected to generate pension surpluses that could not be accessed for more efficient uses by the plan sponsor.

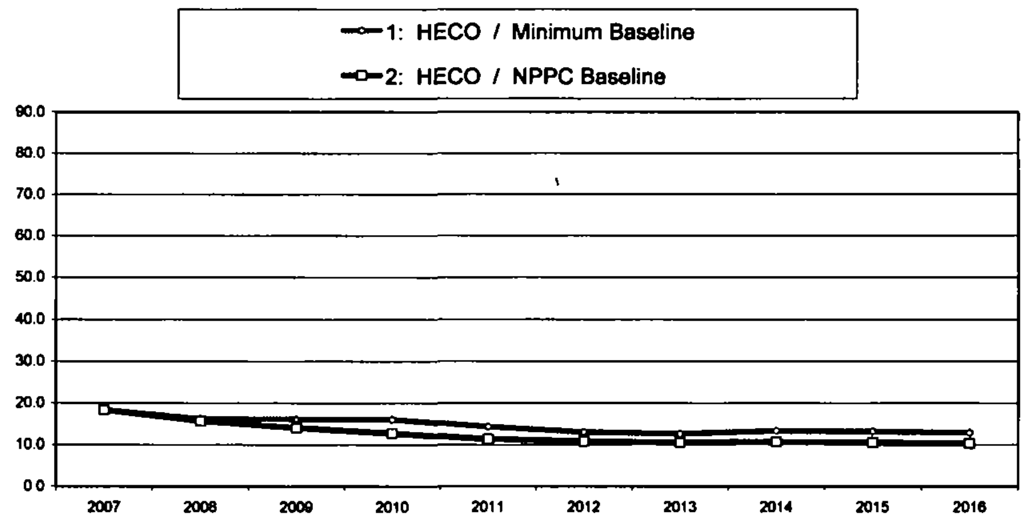
Appendix C

Comparison of Contributions



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: HECO / Minimum	0.0	0.0	0.0	16.0	28.4	19.6	13.3	13.8	14.7	15.3
2: HECO / NPPC Bas	18.4	15.6	14.0	12.7	11.2	10.8	10.5	10.7	10.5	10.3

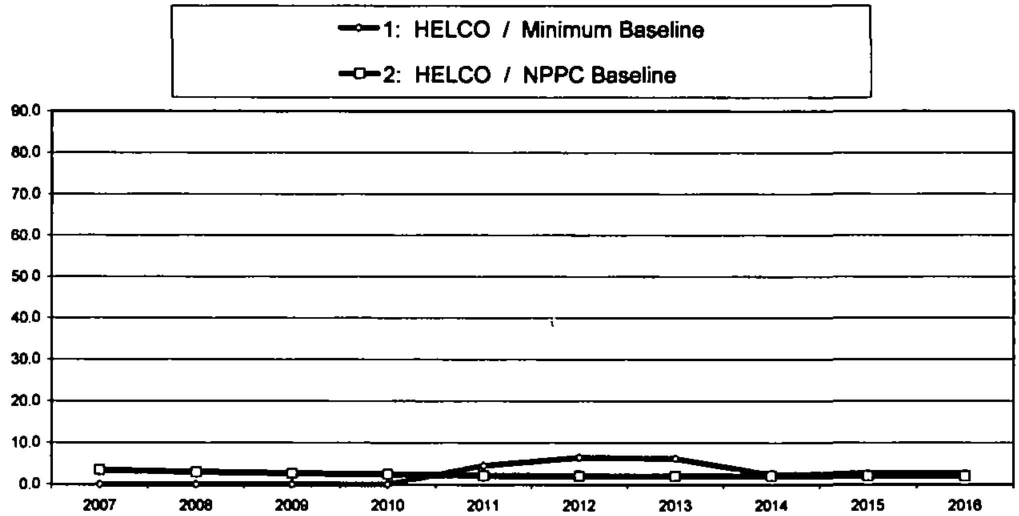
Comparison of Pension Expense



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: HECO / Minimum	18.4	16.1	16.0	16.0	14.3	12.9	12.5	13.3	13.1	12.8
2: HECO / NPPC Bas	18.4	15.6	14.0	12.7	11.2	10.8	10.5	10.7	10.5	10.3

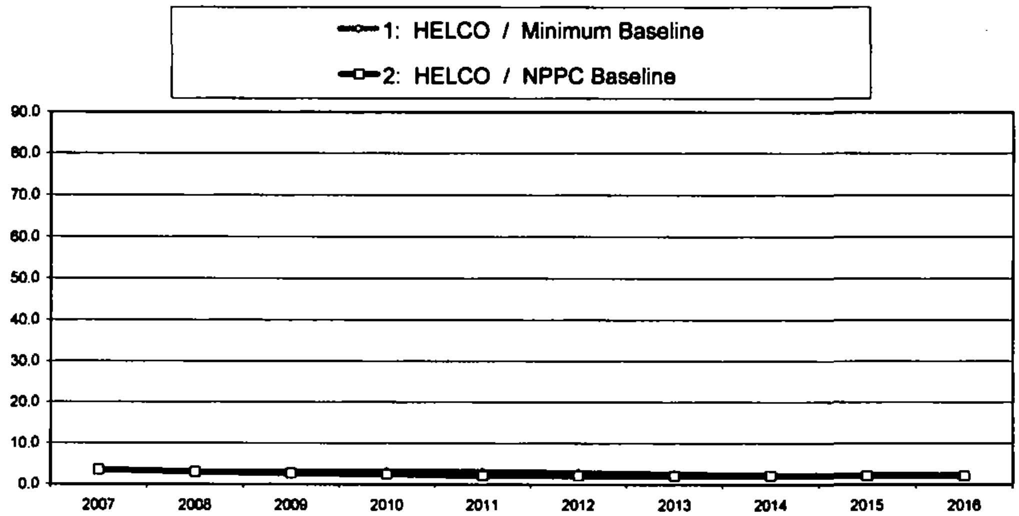
Appendix C

Comparison of Contributions



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: HELCO / Minimum	0.0	0.0	0.0	0.0	4.5	6.4	6.1	2.2	2.6	2.6
2: HELCO / NPPC Ba	3.5	2.9	2.6	2.4	2.1	2.0	2.0	2.0	2.0	2.0

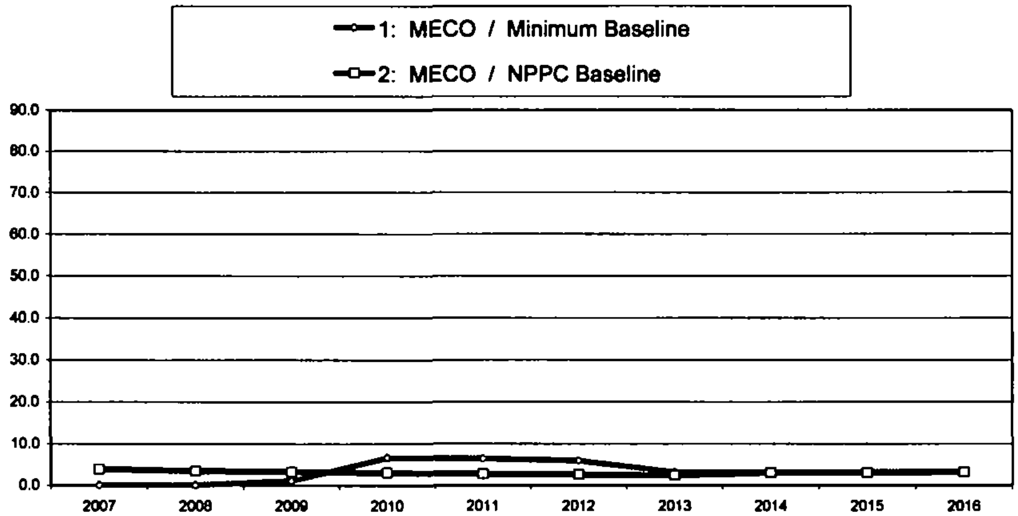
Comparison of Pension Expense



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: HELCO / Minimum	3.5	3.0	3.0	3.0	.3.0	2.8	2.4	2.2	2.2	2.3
2: HELCO / NPPC Ba	3.5	2.9	2.6	2.4	2.1	2.0	2.0	2.0	2.0	2.0

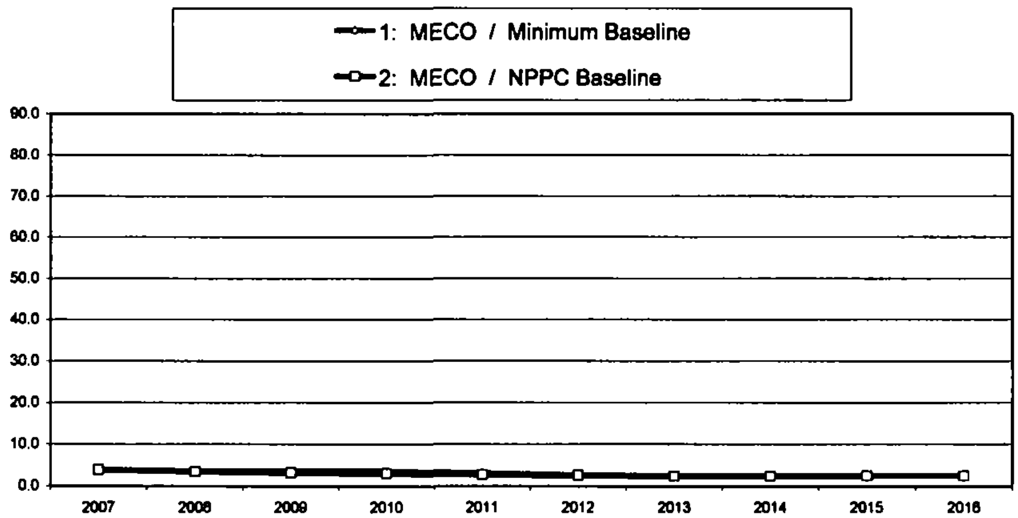
Appendix C

Comparison of Contributions



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: MECO / Minimum	0.0	0.0	1.0	6.6	6.4	5.8	3.1	3.0	3.1	3.2
2: MECO / NPPC Bas	3.9	3.5	3.2	3.0	2.7	2.6	2.4	3.0	3.0	3.2

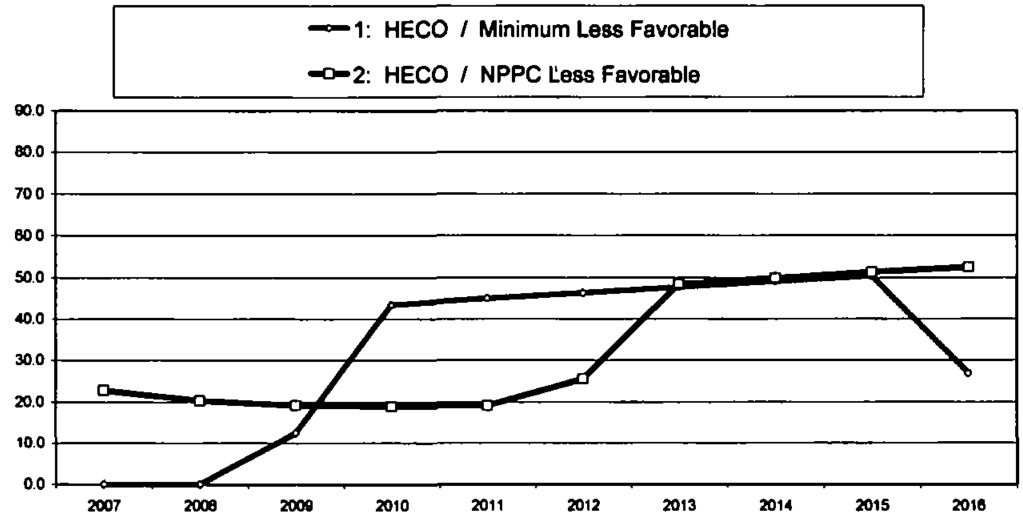
Comparison of Pension Expense



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: MECO / Minimum	3.9	3.6	3.6	3.5	3.1	2.6	2.4	2.5	2.4	2.4
2: MECO / NPPC Bas	3.9	3.5	3.2	3.0	2.7	2.5	2.4	2.3	2.4	2.4

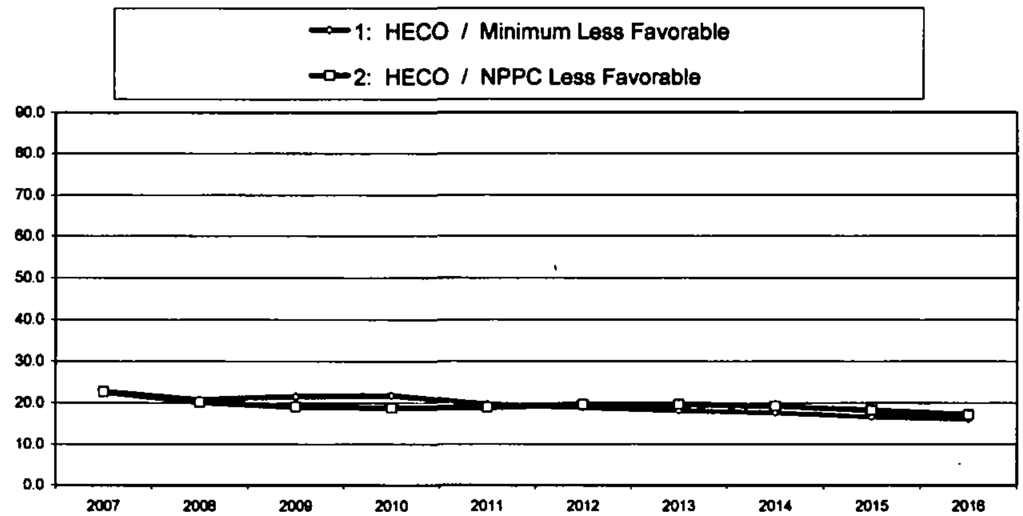
Appendix C

Comparison of Contributions



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: HECO / Minimum Less Favorable	0.0	0.0	12.4	43.4	44.9	46.3	47.6	49.0	50.4	26.8
2: HECO / NPPC Less Favorable	22.8	20.3	19.1	18.9	19.0	25.5	48.5	50.0	51.4	52.6

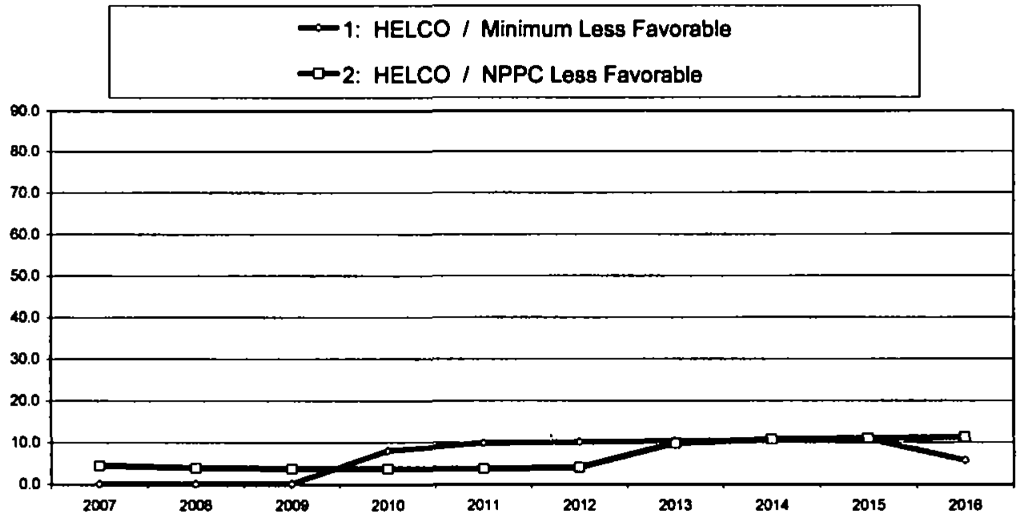
Comparison of Pension Expense



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: HECO / Minimum Less Favorable	22.8	20.8	21.6	21.8	19.7	19.0	18.2	17.7	16.7	16.1
2: HECO / NPPC Less Favorable	22.8	20.3	19.1	18.9	19.0	19.7	19.7	19.3	18.3	17.1

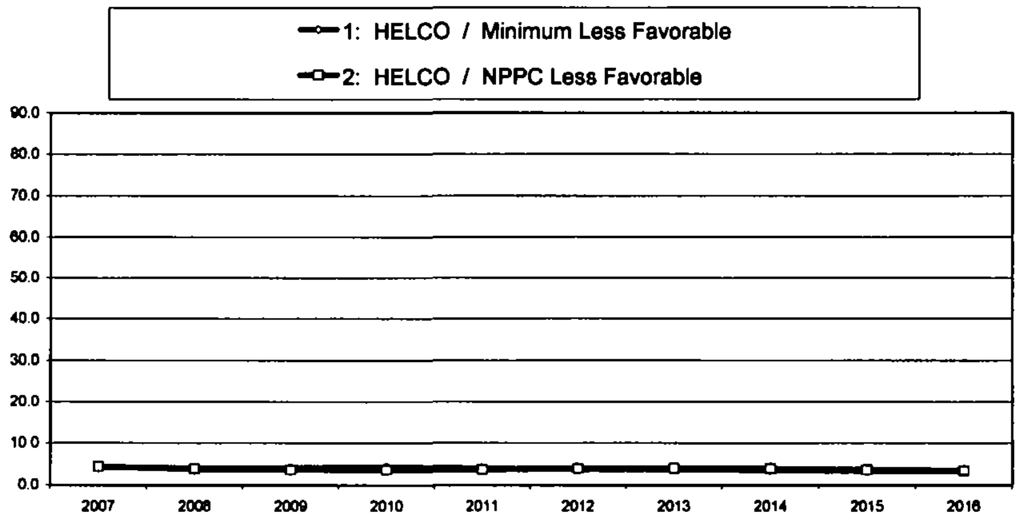
Appendix C

Comparison of Contributions



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: HELCO / Minimum Less Favorable	0.0	0.0	0.0	8.0	9.8	10.1	10.3	10.5	10.7	5.6
2: HELCO / NPPC Less Favorable	4.4	3.9	3.7	3.7	3.7	4.0	9.8	10.8	11.0	11.2

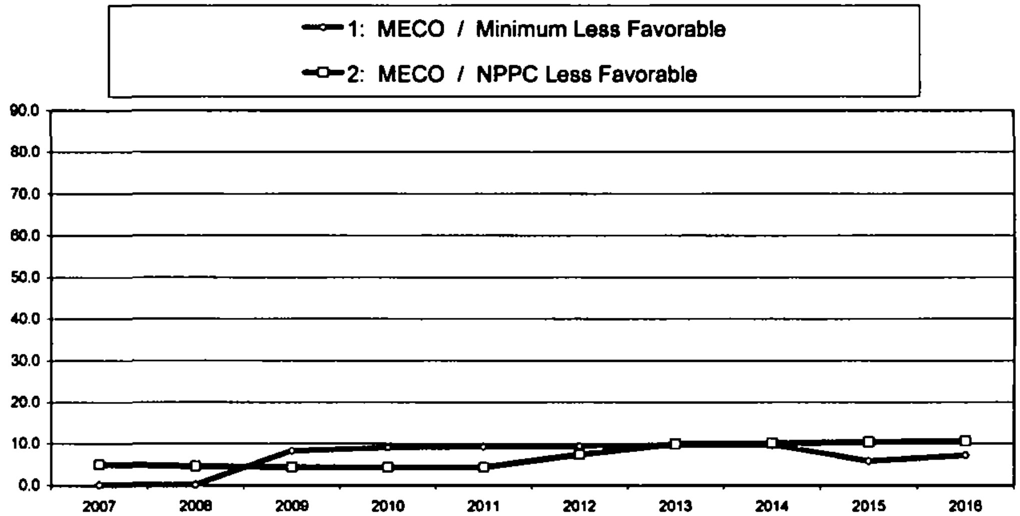
Comparison of Pension Expense



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: HELCO / Minimum Less Favorable	4.4	4.0	4.2	4.3	4.0	3.8	3.7	3.5	3.3	3.1
2: HELCO / NPPC Less Favorable	4.4	3.9	3.7	3.7	3.7	4.0	4.0	3.9	3.7	3.4

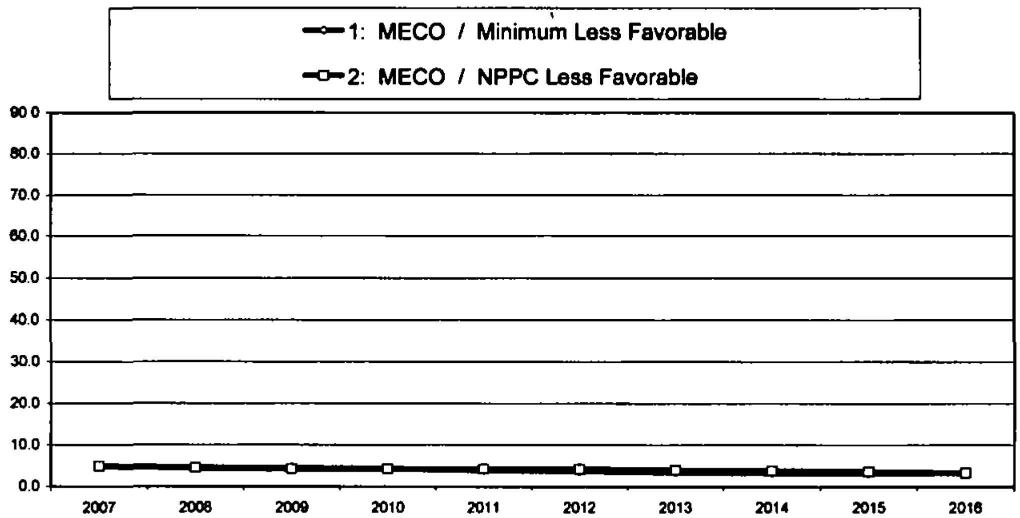
Appendix C

Comparison of Contributions



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: MECO / Minimum Less Favorable	0.0	0.0	8.2	9.0	9.2	9.4	9.6	9.7	5.7	7.1
2: MECO / NPPC Less Favorable	4.9	4.4	4.3	4.2	4.2	7.3	9.9	10.1	10.4	10.6

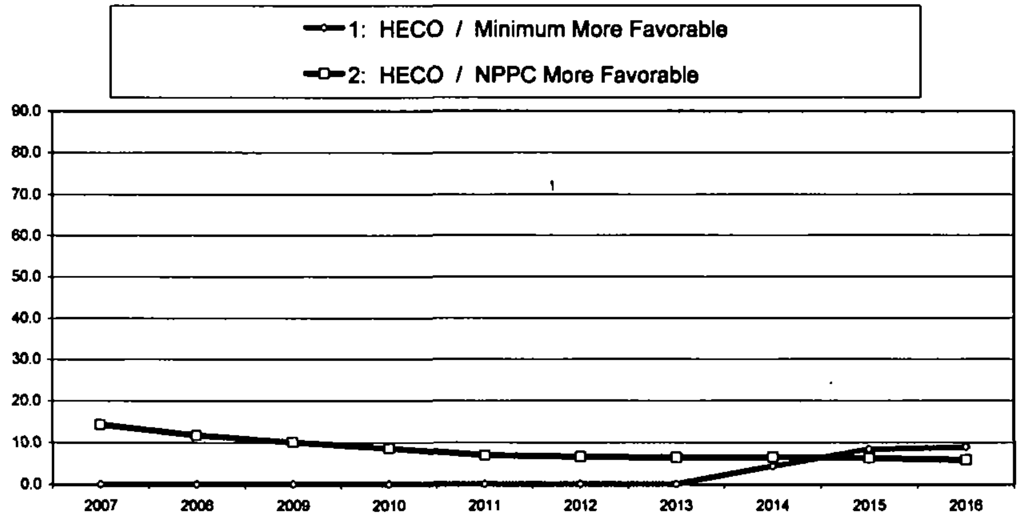
Comparison of Pension Expense



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: MECO / Minimum Less Favorable	4.9	4.6	4.6	4.3	3.9	3.6	3.3	3.2	3.0	3.3
2: MECO / NPPC Less Favorable	4.9	4.4	4.3	4.2	4.2	4.1	3.9	3.8	3.5	3.3

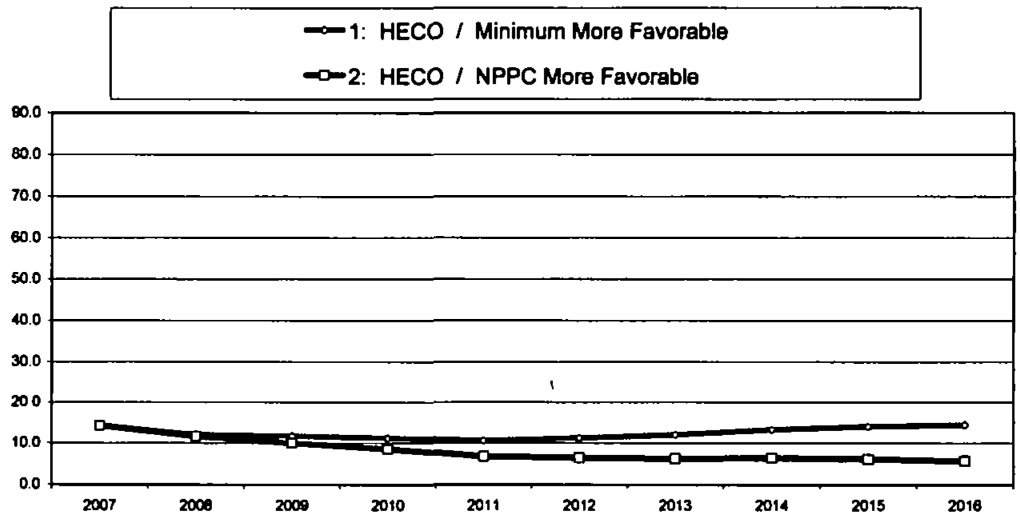
Appendix C

Comparison of Contributions



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: HECO / Minimum More Favorable	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	8.3	8.9
2: HECO / NPPC More Favorable	14.3	11.7	10.1	8.6	6.9	6.5	6.3	6.5	6.2	5.8

Comparison of Pension Expense



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: HECO / Minimum More Favorable	14.3	12.1	11.7	11.2	10.6	11.2	12.0	13.3	14.1	14.5
2: HECO / NPPC More Favorable	14.3	11.7	10.1	8.6	6.9	6.5	6.3	6.5	6.2	5.8

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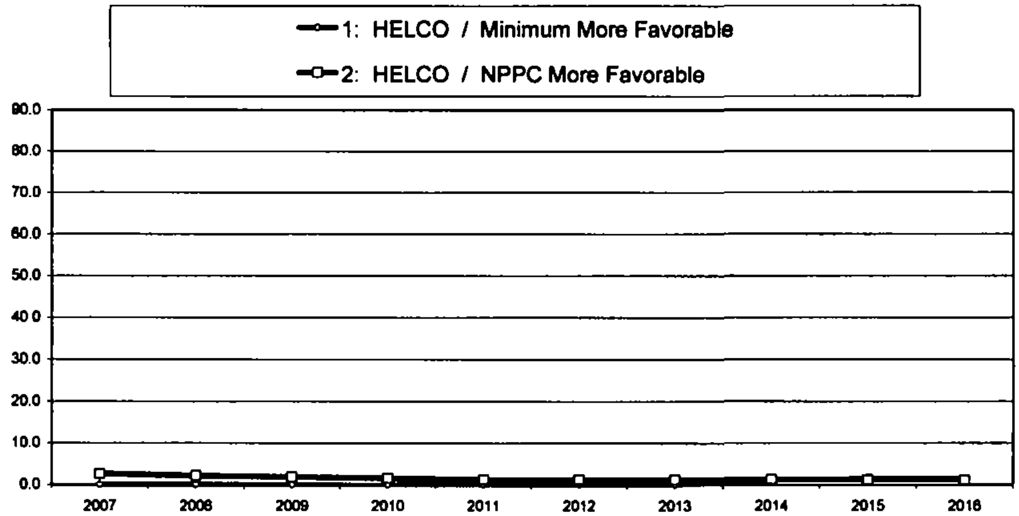
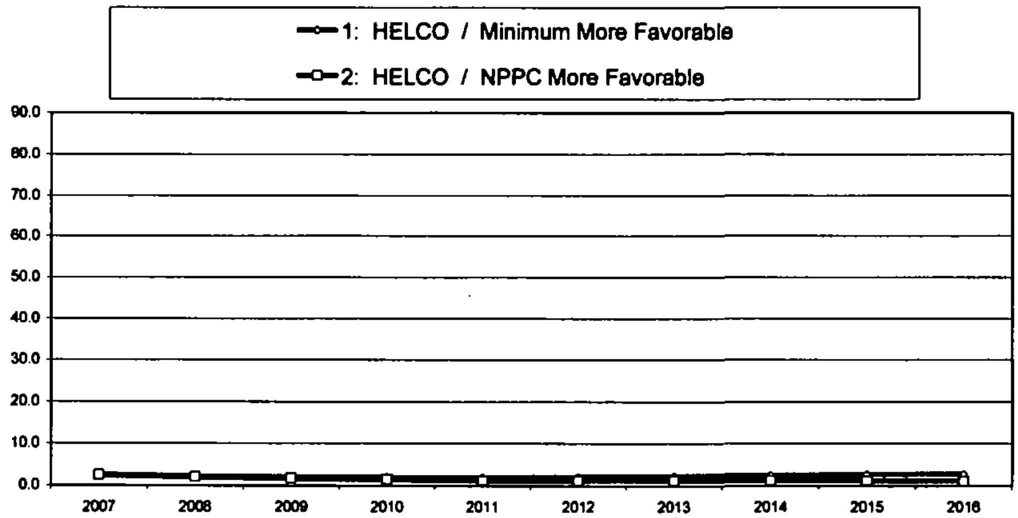


Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: HELCO / Minimum More Favorable	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.3	1.4
2: HELCO / NPPC More Favorable	2.7	2.1	1.8	1.6	1.3	1.2	1.2	1.3	1.2	1.1

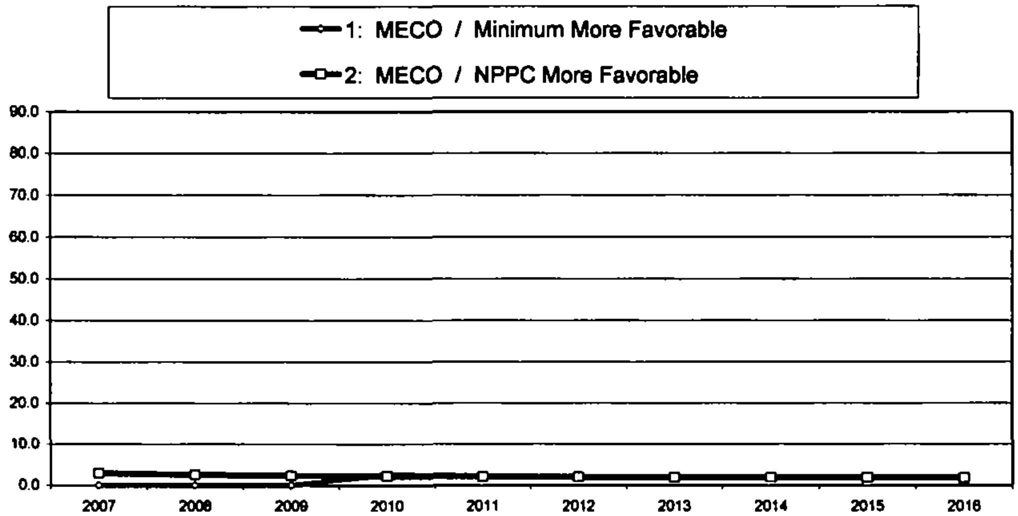
Comparison of Pension Expense



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: HELCO / Minimum More Favorable	2.7	2.2	2.1	2.1	1.9	2.1	2.3	2.5	2.6	2.7
2: HELCO / NPPC More Favorable	2.7	2.1	1.8	1.6	1.3	1.2	1.2	1.3	1.2	1.1

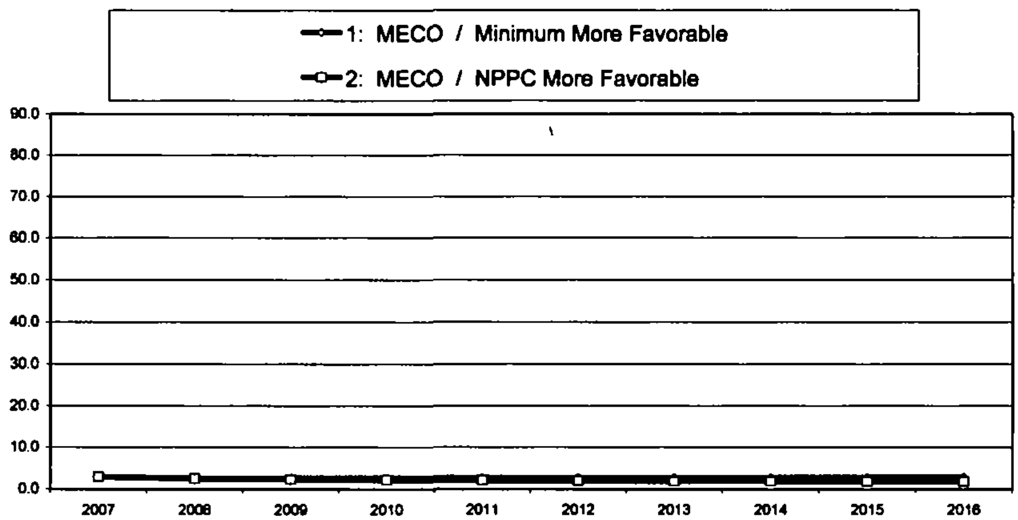
Appendix C

Comparison of Contributions



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: MECO / Minimum More Favorable	0.0	0.0	0.0	2.6	2.1	2.0	2.0	1.9	2.0	2.0
2: MECO / NPPC More Favorable	3.0	2.6	2.4	2.2	2.1	2.0	1.9	1.9	1.8	1.8

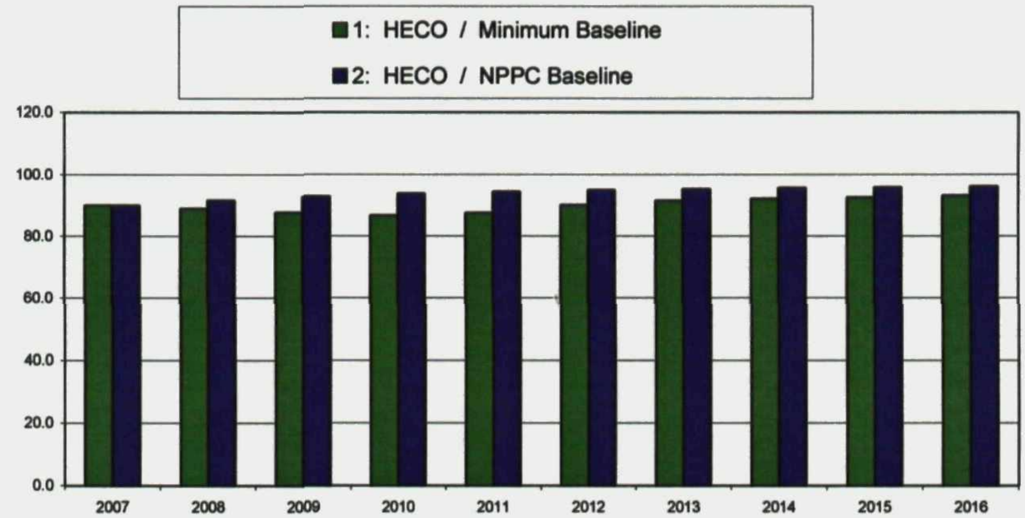
Comparison of Pension Expense



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: MECO / Minimum More Favorable	3.0	2.7	2.7	2.7	2.7	2.8	2.7	2.8	2.8	2.9
2: MECO / NPPC More Favorable	3.0	2.6	2.4	2.2	2.1	2.0	1.9	1.9	1.8	1.8

Appendix C

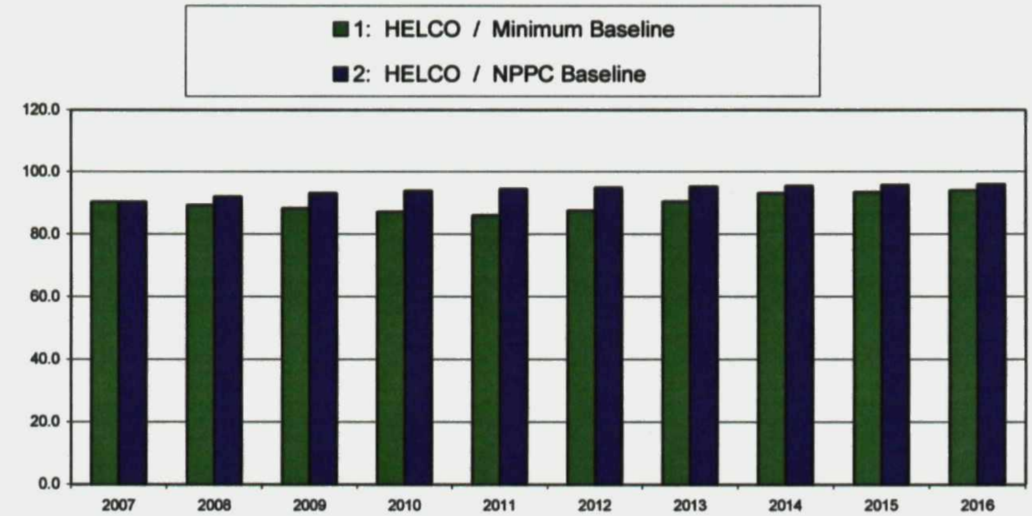
Comparison of _ ASSETS / PBO



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: HECO / Minimum	90.1	89.0	87.9	86.7	87.7	90.2	91.6	92.2	92.7	93.2
2: HECO / NPPC Bas	90.1	91.8	92.9	93.8	94.5	95.0	95.3	95.7	96.0	96.3

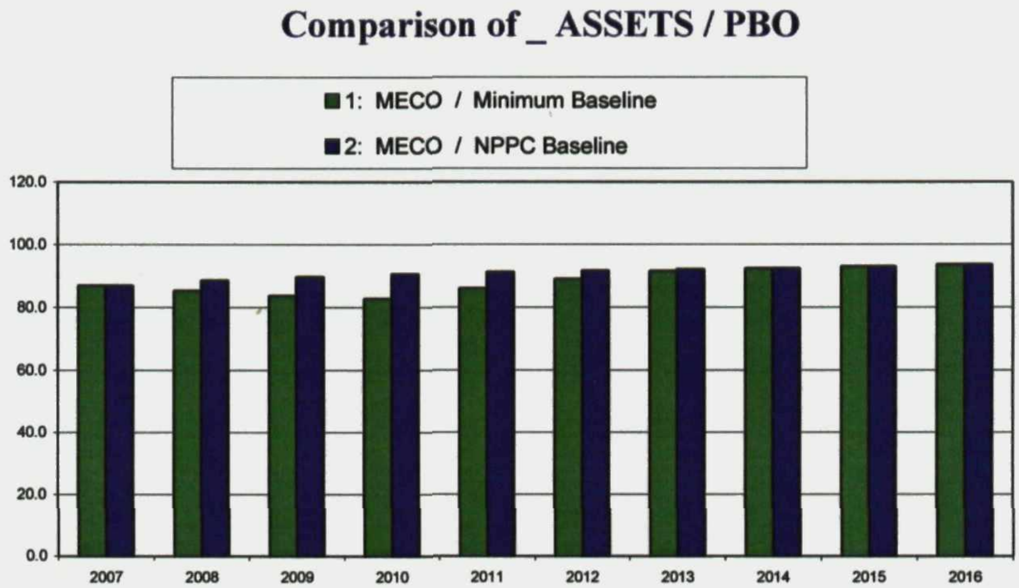
Appendix C

Comparison of _ ASSETS / PBO



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: HELCO / Minimum	90.4	89.4	88.3	87.2	86.0	87.7	90.5	93.2	93.5	94.0
2: HELCO / NPPC Ba	90.4	92.0	93.1	93.9	94.5	94.9	95.2	95.4	95.7	95.9

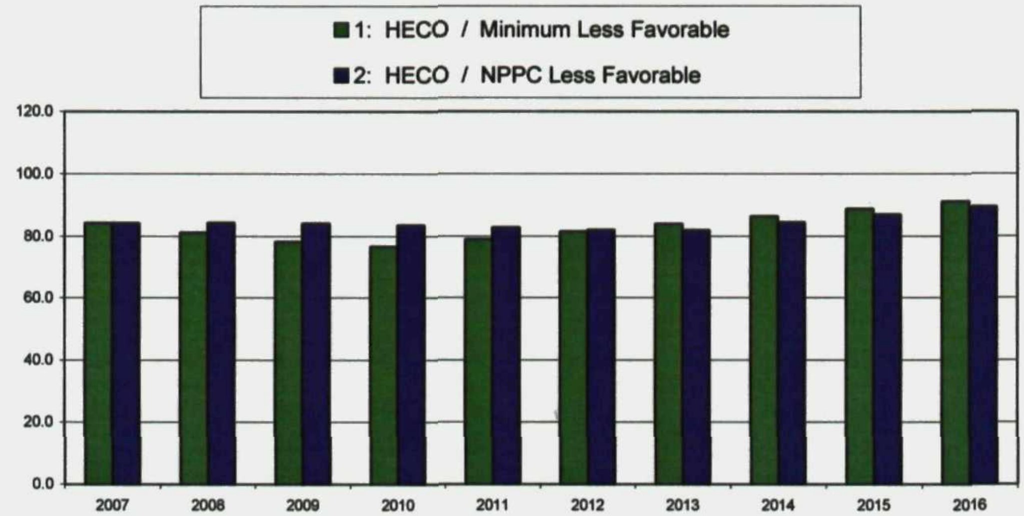
Appendix C



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: MECO / Minimum	87.1	85.4	83.8	82.9	86.1	89.1	91.7	92.5	93.1	93.7
2: MECO / NPPC Bas	87.1	88.8	89.9	90.7	91.4	91.8	92.2	92.5	93.2	93.7

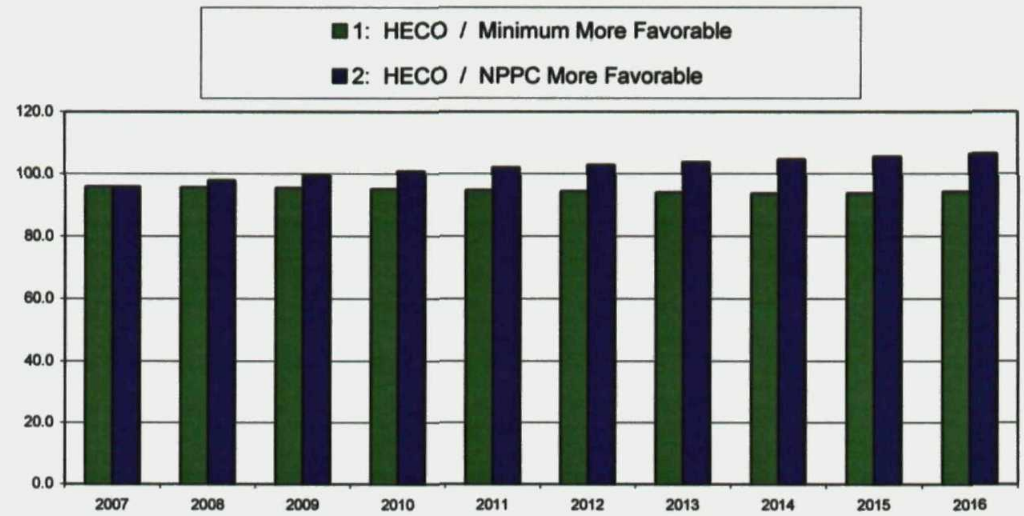
Appendix C

Comparison of _ ASSETS / PBO



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: HECO / Minimum Less Favorable	84.4	81.4	78.3	76.9	79.2	81.7	84.1	86.6	89.0	91.4
2: HECO / NPPC Less Favorable	84.4	84.6	84.3	83.7	83.0	82.2	82.2	84.7	87.2	89.7

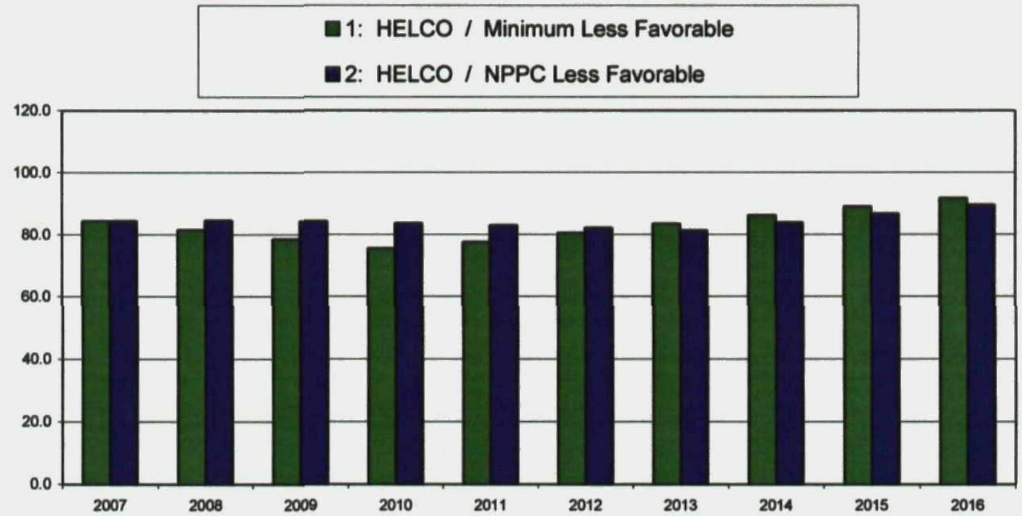
Comparison of _ ASSETS / PBO



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: HECO / Minimum More Favorable	95.9	95.7	95.4	95.2	94.8	94.5	94.1	93.8	93.9	94.4
2: HECO / NPPC More Favorable	95.9	98.0	99.6	100.9	102.1	103.0	103.9	104.8	105.7	106.6

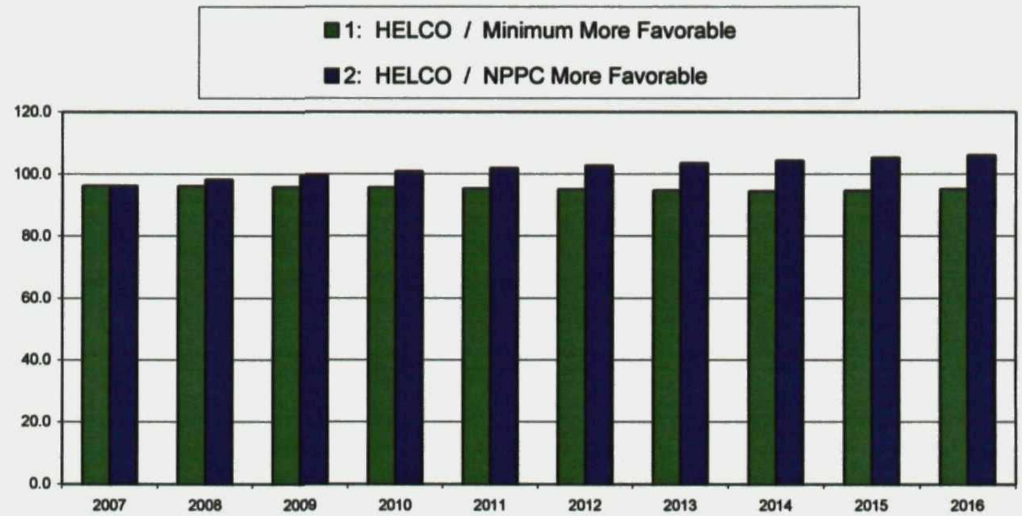
Appendix C

Comparison of _ ASSETS / PBO



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: HELCO / Minimum Less Favorable	84.5	81.6	78.7	75.6	77.7	80.7	83.6	86.4	89.2	91.9
2: HELCO / NPPC Less Favorable	84.5	84.8	84.4	83.8	83.1	82.3	81.5	84.0	86.9	89.6

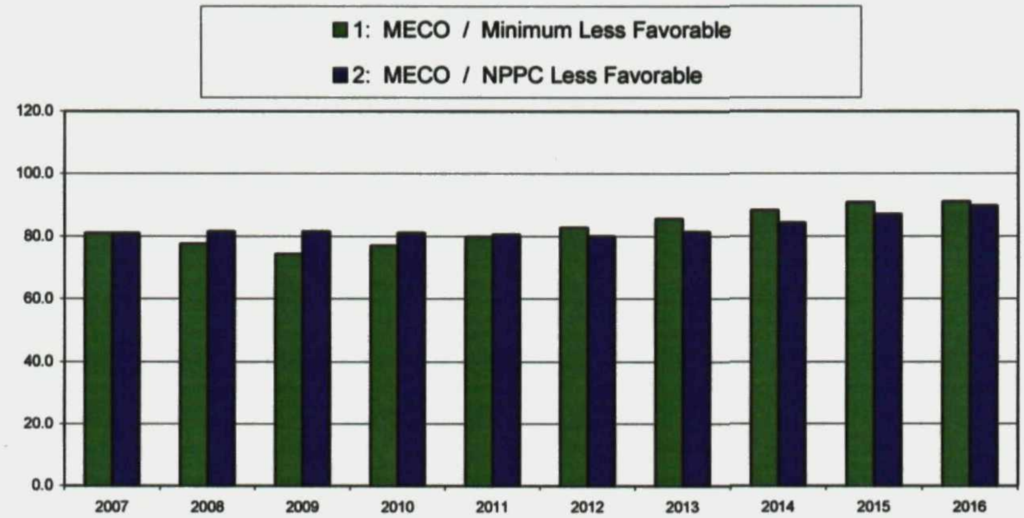
Comparison of _ ASSETS / PBO



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: HELCO / Minimum More Favorable	96.4	96.2	96.0	95.7	95.4	95.1	94.8	94.5	94.8	95.2
2: HELCO / NPPC More Favorable	96.4	98.4	99.8	101.0	102.0	102.8	103.6	104.5	105.3	106.2

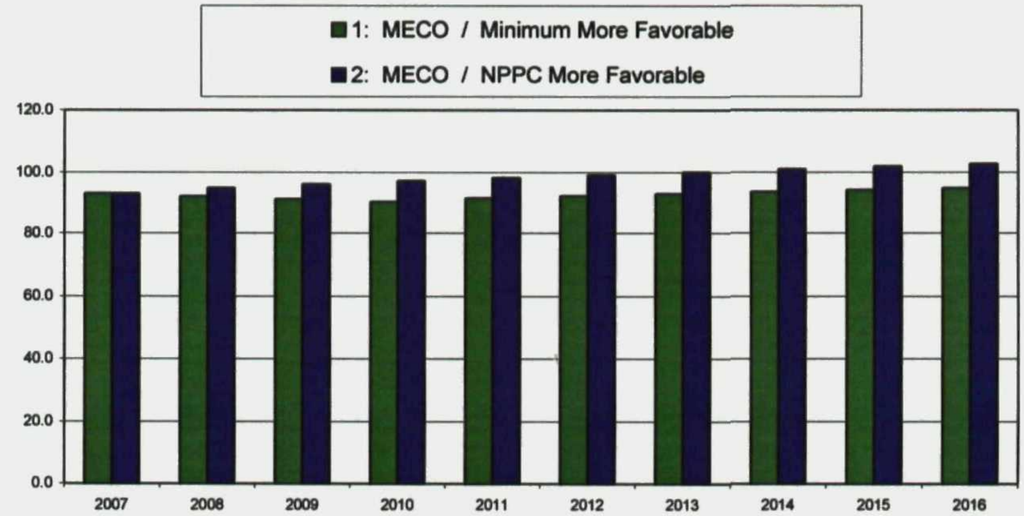
Appendix C

Comparison of _ ASSETS / PBO



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: MECO / Minimum Less Favorable	81.2	77.8	74.5	77.1	80.1	83.0	85.8	88.4	91.0	91.2
2: MECO / NPPC Less Favorable	81.2	81.7	81.6	81.3	80.8	80.2	81.6	84.4	87.2	89.9

Comparison of _ ASSETS / PBO



Graph Data Values	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1: MECO / Minimum More Favorable	93.1	92.2	91.3	90.4	91.6	92.4	93.0	93.7	94.3	94.9
2: MECO / NPPC More Favorable	93.1	95.0	96.3	97.4	98.4	99.3	100.2	101.1	102.1	103.0

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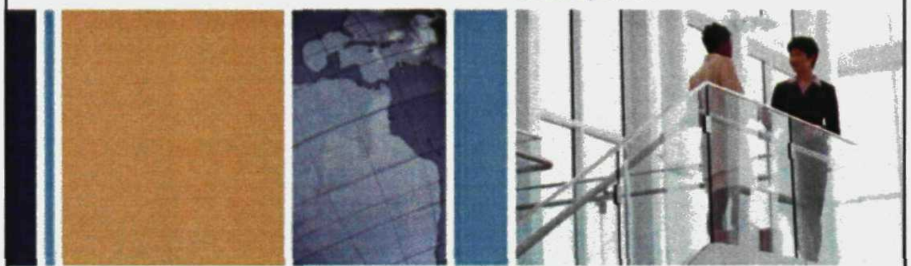

Pension Protection Act
Pension Funding

May, 2007

Retirement Plan for Employees of Hawaiian Electric Industries, Inc. and Participating Subsidiaries

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Worldwide

Contents

- Pension Protection Act - Overview
- Funding Reform
  - Summary - new concepts and methodology
  - At risk plans
  - Benefit restrictions
  - Actuarial Certifications
  - Maximum deductible
  - Next steps – short term funding considerations
- Other Issues
  - PBGC Variable Premiums
  - Disclosure Requirements

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Pension Protection Act
Overview

- Pension Protection Act of 2006 (H.R.4)
  - Approved by House on July 28
  - Approved by Senate on August 3
  - Signed by President Bush on August 17
- Major changes:
  - Legacy funding methods gone
  - Funding to target liability
  - Benefit payouts, plan improvements subject to funded percentage
  - Additional disclosure requirements
- Most provisions – especially defined benefit provisions – effective for 2008 plan year

Pension Protection Act
Changes in Philosophy

Where we've been
- Long-term focus on DB funding patterns
- Limited disclosure requirements
- PBGC financial distress
- Benefit rules that don't reflect evolving plan design
- Limited benefit restrictions

Where we are going
- Short-term focus on DB funding patterns
- Rigorous disclosure requirements
- Enhanced PBGC solvency
- Benefit rules that better reflect evolving plan designs, like hybrid plans
- More benefit restrictions

Overview

Pension Protection Act
Broad Implications

There are new rules effective 2008 for…

- Single-Employer Plans
  - Funding targets
  - Contribution requirements
  - Valuation requirements
  - Credit balances
  - PBGC premiums
  - Benefit limitations
  - Disclosures
- Hybrid Pension Plans
- Defined Contribution Plans
- Multiemployer Plans

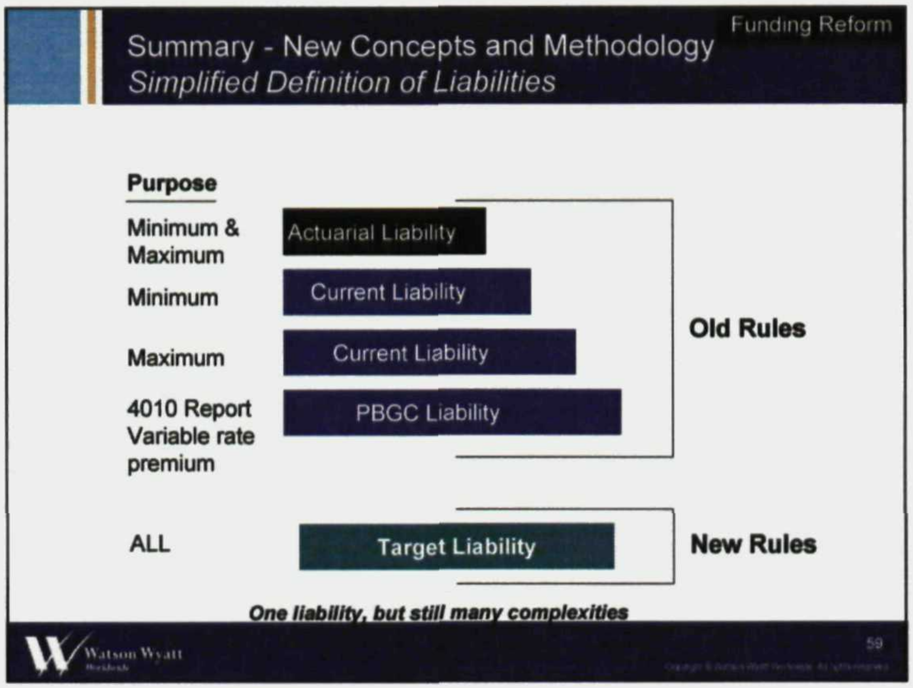
The biggest change to retirement plans since ERISA was enacted in 1974

Overview

Pension Protection Act
Strategies for Responding

- Four variables influence the cost of a pension plan and its funded status
  - Funding policy
    - How much, when?
  - Plan design
    - How much in benefits?
  - Asset allocation
    - How much investment income?
  - Actuarial assumptions and methods
    - Impact incidence of plan's cost

With funding reform mandating some actuarial assumptions and methods, plan sponsors will have three major levers to employ


Funding Reform
Summary - New Concepts and Methodology
Simplified Definition of Liabilities
Purpose
Minimum & Maximum
Actuarial Liability
Minimum
Current Liability
Maximum
Current Liability
4010 Report Variable rate premium
PBGC Liability
Old Rules
ALL
Target Liability
New Rules
One liability, but still many complexities
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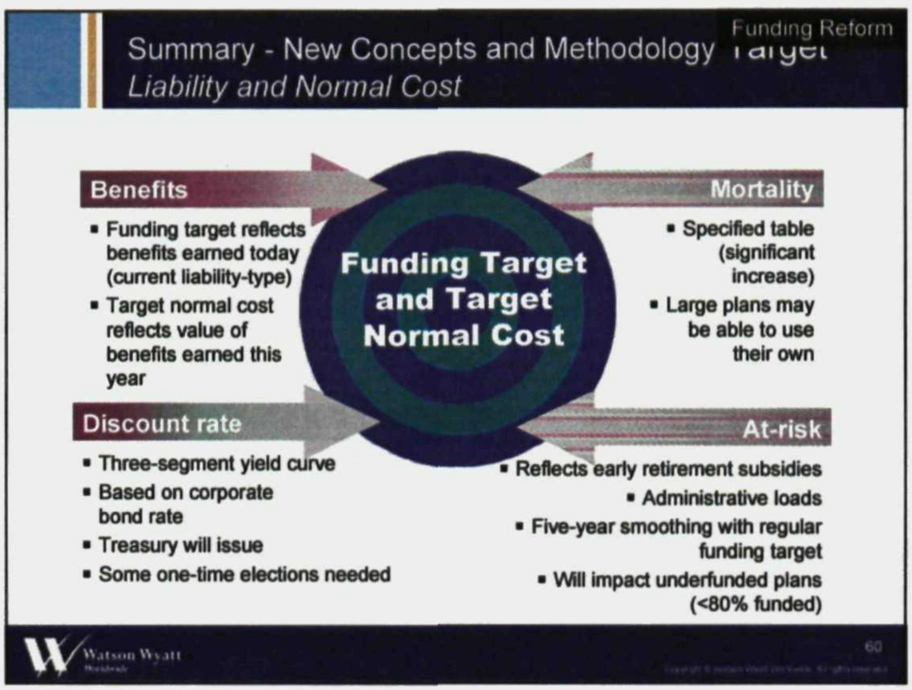
Funding Reform
Summary - New Concepts and Methodology
Liability and Normal Cost
Benefits
▪ Funding target reflects benefits earned today (current liability-type)
▪ Target normal cost reflects value of benefits earned this year
Funding Target and Target Normal Cost
Mortality
▪ Specified table (significant increase)
▪ Large plans may be able to use their own
Discount rate
▪ Three-segment yield curve
▪ Based on corporate bond rate
▪ Treasury will issue
▪ Some one-time elections needed
At-risk
▪ Reflects early retirement subsidies
▪ Administrative loads
▪ Five-year smoothing with regular funding target
▪ Will impact underfunded plans (<80% funded)
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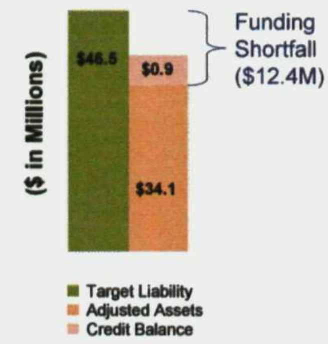
Funding Reform

Summary - New Concepts and Methodology

Minimum Contribution Highlights - Underfunded Plans



- Total assets: $35.0M

- Target Liability (TL)
  - Measured using prescribed assumptions
  - If plan at-risk, may be subject to additional "load" and conservative assumptions
- Actuarial Value of Assets (AVA)
  - Usually must reduce for credit balance
  - Fair Values may be averaged up to 24 months
- Credit Balance (CB)
  - May use to reduce contributions if sufficiently funded
  - Preferential treatment of pre-2008 balance vs. post-2007
  - May trade-in (convert to Adjusted Assets)
    - Improve funded status
    - Reduce ability for funding holidays in future

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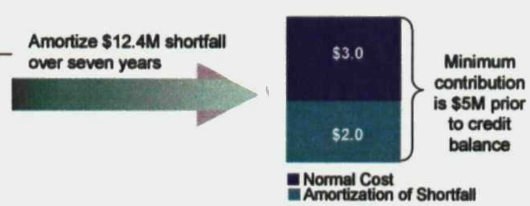
Funding Reform

Summary - New Concepts and Methodology

Minimum Contribution Highlights - Underfunded Plans

Effective 2008



Minimum contribution = normal cost plus seven year amortization less excess assets

Generally can use $0.9M credit balance to reduce contributions (or save for a rainy day)

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Funding Reform

Summary - New Concepts and Methodology

Minimum Contribution Highlights - Overfunded Plans

Effective 2008

Minimum contribution =
normal cost plus
seven year amortization
less excess assets

Generally can use $0.9M
credit balance to
reduce contributions
(or save for a rainy day)

Funding Reform

Summary - New Concepts and Methodology

Special Funding Rule

- No amortization of funding shortfall if funding thresholds are met
- To use for later transition years, must meet funding threshold in all preceding years
- Similar rule for benefit restriction tests
- Funding policy for 2006 should consider meeting the requirements for this rule

No Amortization of Funding Shortfall if

Year	Funding %
2007	90%
2008	92%
2009	94%
2010	96%
2011	100%

Important rule for relatively well-funded plans with large credit balances

Summary - New Concepts and Methodology

New Funding Rules - Use of Credit Balance

- Credit balance is the sum of:
  - Carryover Account (pre 2008)
  - Prefunding Balance (post 2007)
- Adjust annually for <u>actual</u> investment gains/losses
- Plans funded to at least 80% of TL in prior plan year (after subtracting Prefunding Balance) can elect to use CB to reduce contribution requirements

Summary - New Concepts and Methodology

Use of Credit Balance - Minimum Contribution Calculations

	Carryover Balance	Prefunding Balance
Exclude from Asset Value		
Determination if minimum contribution is due	Yes	Yes
Determination if no new base is established	No	Yes, if electing to use
Determination if plan permitted to "wipe out" prior bases	Yes	Yes
Determination of Funding Shortfall for establishing new base	Yes	Yes
Determination if 80% funded (prior year) and therefore, allowed to use credit balance to reduce minimum contribution	No	Yes

New rules limit the "credit" employers will get for contributions in excess of the minimum required amount

Summary - New Concepts and Methodology

Use of Credit Balance - Other Calculations and Determinations

	Carryover Balance	Prefunding Balance
Exclude from Asset Value		
Maximum deductible contribution calculation	No	No
Determination of at-risk status	Yes	Yes
Determination of whether plan is 100% funded for purposes of benefit restrictions (% subject to transition)	No	No
Determination of applicable benefit restrictions	Yes	Yes
Determination of "excess assets" for transfer to retiree health benefit plan	Yes	Yes

At-Risk Plans

Determination and Implications

- Plan deemed at-risk if it fails to meet certain funding thresholds (with credit balances subtracted) ***in the prior year***
  - < 80% funded on regular funding target, ***AND***
  - < 70% funded on at-risk funding target
- Implications of being at-risk
  - Increases funding target liability to reflect early retirement subsidies
  - Additional load added to funding target if deemed at-risk for multiple years
  - Restrict funding or reserving of assets for Nonqualified Deferred Compensation Plans
  - Plans deemed at-risk do not ***necessarily*** have benefit restrictions
  - Variable rate premiums

Plans with large credit balances and generous early retirement subsidies may be surprised to learn they are at-risk

At-Risk Plans

At-Risk Liability Calculation

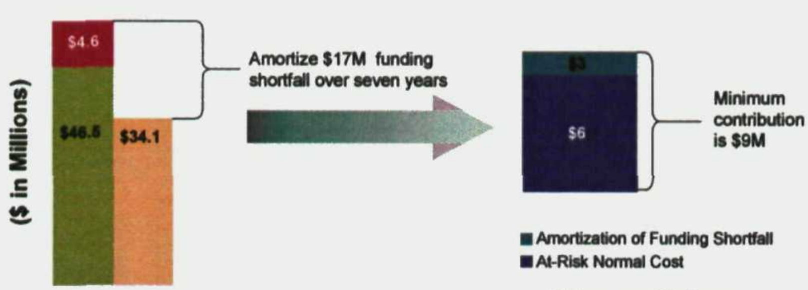
	At-Risk Target Liability (ARTL)	At-Risk Normal Cost (ARNC)
Additional Assumptions	Workers eligible to retire in the next 10 years(1) will elect to: ▪ Retire as early as possible ▪ In form most expensive to plan sponsor	Workers eligible to retire in the next 10 years(1) will elect to: ▪ Retire as early as possible ▪ In form most expensive to plan sponsor
Loading Factor(2)	+ $700 per participant + 4.0% of ARTL	+ 4.0% of ARNC
Minimum Amount	Target Liability	Target Normal Cost

(1) Optional auto companies and suppliers: Exclude anyone offered but not accepting early retirement in 2006
(2) If at-risk in two of last four plan years

At Risk Plans

Funding At-Risk Plans

Assuming Fully Phased-In



Minimum contribution = normal cost plus seven year amortization of funding shortfall

Benefit Restrictions

Qualified Plan Benefits

Funded Status	Implications (Effective 2008)
>80% OR > 100% (phased-in) without reducing assets for credit balance	▪ No restrictions
60-80%	▪ No benefit increases ▪ Limitations on lump-sum payments
< 60% funded	▪ No benefit increases ▪ No lump sums ▪ Benefit accruals frozen ▪ Shut-down benefits frozen
< 100% AND sponsor is bankrupt	▪ No lump sums

Presumption of 10% Reduction in Funded Status Unless Actuary Certifies Before Beginning of 4th Month

Presumption of < 60% Funded Unless Actuary Certifies Before Beginning of 10th Month

Administrative complexities may present reasons to target 100% funding

Benefit Restrictions

Qualified Plan Benefits

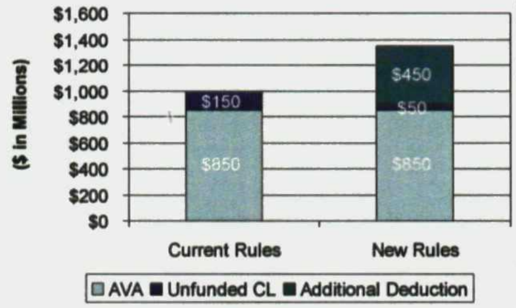
- Presumption of continued underfunding after beginning of plan year:
  - Plan subject to restriction in prior year: **Until enrolled actuary certifies the funded percentage** for the plan year
  - Plan within 10 percentage points of restriction: Presumed drop of 10 percentage points after three months **unless enrolled actuary certified the actual funded percentage**
  - No certification after 10 months: Plan conclusively presumed to be less than 60% funded
- Mandatory waiver of credit balances:
  - Lump-sum distributions: All plans, if credit balance sufficient to avoid restriction
  - Other restrictions: Only collectively bargained plans, if credit balance sufficient to avoid restrictions
- Also: May make contributions, provide security to avoid benefit limitations

Funding Reform

Maximum Deductible Contributions

Transition Years (2006 and 2007)

- 150% of current liability minus assets (*140% for multiemployer plans)*
- Contributions toward 25% of pay aggregate limit will <u>not</u> include
  - DC contributions (up to 6% of pay)
  - Multiemployer DB contributions



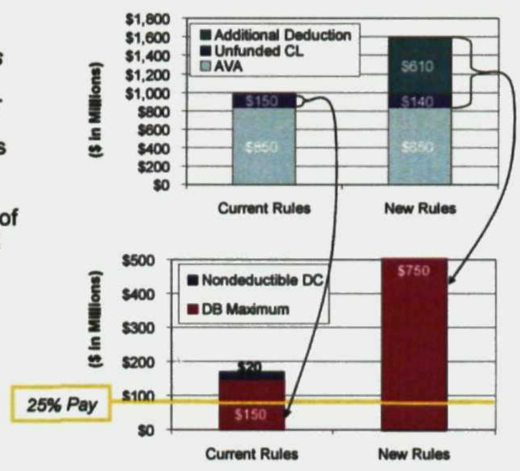
Note: Illustrative change in unfunded CL from current rules to new rules reflect impact of extension of interest rate relief (change from 30-year Treasury to corporate bond yield).

Funding Reform

Maximum Deductible Contributions

Post-Transition

- 150% of target liability *plus* Cushion *minus* Assets
  - Cushion: Provision for future salary, benefit, and IRC limit increases
- *Multiemployer plans: 140% and no Cushion*
- Contributions toward 25% of pay aggregate limit will <u>not</u> include
  - DC contributions (up to 6% of pay)
  - Multiemployer DB contributions
  - PBGC-covered single employer DB contributions



Funding Reform Next Steps

Next Steps

Short-Term Funding Considerations

Target	Implications
▪ Contribute minimum required contribution ▪ 100% funding target in 2008	▪ Minimize short-term cash outlays ▪ Must fund towards 100% target liability in 2008
▪ Eliminate variable rate premiums ▪ 100% funding target in 2008	▪ Avoid variable rate premiums in 2006 and 2007 ▪ Must fund towards 100% target liability in 2008
▪ Target 90% funded status for 2007 ▪ 92% funding target in 2008	▪ Increase credit balance and funding flexibility ▪ Eligible for phase-ins in 2008 ▪ Avoid variable rate premiums in 2006 and 2007
▪ Contribute maximum deductible contribution in 2006 and 2007	▪ Maximize tax deductions ▪ Lower P&L ▪ Increase credit balance and funding flexibility

Watson Wyatt

Other Issues

PBGC Variable-Rate Premiums

- All plans less than 100% funded would be affected
  - No other exemptions – no full funding limitation exemption
  - Determine using funding target and fair market value of plan assets
  - Based on unfunded *vested* benefits ($9 per $1,000 – same as prior law) measured using three-segment corporate bond yield without 24-month smoothing
- Termination premiums for plans that undergo distress or involuntary terminations is permanent
- Interest credited on premium overpayments

Watson Wyatt

Other Issues

Disclosures

Annual Funding Notice and Annual Report

- Annual Funding Notice (replaces Summary Annual Report and 4011 Participant Notices)
  - Effective in 2008
  - Due 120 days after end of plan year
  - To PBGC, participants, beneficiaries, unions and (for multiemployer plans) contributing employers
  - General content: Funded status, funding policy, asset allocation
- Annual Report Form 5500
  - New information required
  - Employers and DOL must provide electronically

Other Issues

Disclosures

Additional Participant Notices (Effective 2008)

- Notice of Intent to Terminate must be provided to participants
- Periodic benefit statements
  - Every three years (or upon request), or
  - Notify participants annually how to request information
  - Include benefits accrued, benefits vested, offsets, other information
  - Effective for plan years beginning in 2007 (later for collectively bargained plans)

Hawaiian Electric Company, Inc.
Supplemental Supporting Documentation for the Pension Funding Study

Hawaiian Electric Company, Inc., Hawaii Electric Light Company, Inc., and Maui Electric Company, Limited ("HECO", "HELCO", and "MECO", respectively, or collectively referred to as "the Companies") provide pension benefits to certain of their current and former employees by participating in the Retirement Plan for Employees of Hawaiian Electric Industries, Inc. and Participating Subsidiaries ("Pension Plan"). The Companies retained the services of Watson Wyatt Worldwide to prepare a report ("Pension Study") which summarizes complex pension funding rules, discusses pension funding alternatives, and evaluates the impact of various pension funding alternatives on stakeholders. This document contains the documentation supporting the revenue requirements calculations used in the Pension Study.

The major financial assumptions used throughout all analyses are summarized on the following page. The revenue requirement calculations assume that the pension tracking mechanism implemented at HELCO is also implemented at HECO and MECO and assume rate cases in the initial year (2006 for HELCO and 2007 for HECO and MECO) and every five years thereafter. As a result, the revenue requirements for each year are the revenue requirements of the most recent rate case test year and do not change between test years.

Calculations were provided for each of the three companies (HECO, HELCO, and MECO) and under two funding alternatives for each company:

1. Minimum Required Contribution ("MRC")
2. Net Periodic Pension Cost ("NPPC")

There were three scenarios for each of the funding alternatives:

1. Baseline
2. Less Favorable
3. More Favorable

In addition to these eighteen calculations incorporated in the Pension Study, the Companies prepared two additional sets of illustrations for HECO only. These additional illustrations assume rate cases every three years and every five years and an amortization of the current pension asset over a fixed 10 years (rather than over 5 years and adjusting each rate case on a rolling basis which was used in the HELCO 2006 test year rate case). These illustrations provide an alternative pension tracking mechanism implementation at HECO which smoothes the impact on ratepayers while maintaining the basic pension tracking mechanism design which was implemented at HELCO.

HECO
NPPC Funding Policy
Baseline Economic Assumptions

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on on Trans to Plant (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep on Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								68,260	(26,560)			41,700	
Y	Initial	18,400	9,972	5,520	22,852		22,852	49,860	(19,400)	5,520	-	35,980	31,067
	Year 1	18,400	9,972	5,520	22,852	368	23,220	37,088	(14,431)	11,040	(368)	33,329	31,067
	Year 2	18,400	9,972	5,520	22,852	552	23,404	22,716	(8,839)	16,560	(920)	29,517	31,067
	Year 3	18,400	9,972	5,520	22,852	736	23,588	7,044	(2,741)	22,080	(1,656)	24,727	31,067
	Year 4	18,400	9,972	5,520	22,852	920	23,772	(10,128)	3,941	27,600	(2,576)	18,837	31,067
Y	Year 5	5,260	-	1,578	3,682	973	4,655	(27,700)	10,778	29,178	(3,549)	8,707	7,231
	Year 6	5,260	-	1,578	3,682	1,025	4,707	(22,460)	8,739	30,756	(4,574)	12,461	7,231
	Year 7	5,260	-	1,578	3,682	1,078	4,760	(17,020)	6,622	32,334	(5,652)	16,285	7,231
	Year 8	5,260	-	1,578	3,682	1,130	4,812	(11,780)	4,584	33,912	(6,782)	19,934	7,231
	Year 9	5,260	-	1,578	3,682	1,183	4,865	(6,740)	2,623	35,490	(7,965)	23,408	7,231
	Year 10												
	Total (Yr 1-10)	**118,300**	**39,888**	**29,970**	**109,818**	**7,965**	**117,783**						**160,423**
	NPV Year 1	**84,867**	**32,306**	**22,231**	**84,180**	**4,967**	**89,147**						**120,574**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/5
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes)

HECO
MRC Funding Policy
Baseline Economic Scenario

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on on Trans to Plant (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								68,260	(26,560)			41,700	
Y	Initial	18,400	9,972	5,520	22,852		22,852	49,860	(19,400)	5,520	-	35,980	31,067
	Year 1	18,400	9,972	5,520	22,852	368	23,220	21,488	(8,361)	11,040	(368)	23,799	31,067
	Year 2	18,400	9,972	5,520	22,852	552	23,404	(6,884)	2,679	16,560	(920)	11,435	31,067
	Year 3	18,400	9,972	5,520	22,852	736	23,588	(19,256)	7,492	22,080	(1,656)	8,660	31,067
	Year 4	18,400	9,972	5,520	22,852	920	23,772	(19,228)	7,482	27,600	(2,576)	13,278	31,067
Y	Year 5	7,300	-	2,190	5,110	993	6,103	(28,000)	10,895	29,790	(3,569)	9,116	8,424
	Year 6	7,300	-	2,190	5,110	1,066	6,176	(22,000)	8,560	31,980	(4,635)	13,905	8,424
	Year 7	7,300	-	2,190	5,110	1,139	6,249	(15,500)	6,031	34,170	(5,774)	18,927	8,424
	Year 8	7,300	-	2,190	5,110	1,212	6,322	(8,100)	3,152	36,360	(6,986)	24,426	8,424
	Year 9	7,300	-	2,190	5,110	1,285	6,395	(100)	39	38,550	(8,271)	30,218	8,424
	Year 10												
	Total (Yr 1-10)	**128,500**	**39,888**	**33,030**	**116,958**	**8,271**	**125,229**						**166,388**
	NPV Year 1	**90,024**	**32,306**	**23,918**	**88,115**	**5,126**	**93,241**						**123,861**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/5
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

HECO
NPPC Funding Policy
Less Favorable Economic Scenario

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on on Trans to Plant (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep on Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								68,260	(26,560)			41,700	
Y	Initial	18,400	9,972	5,520	22,852		22,852	49,860	(19,400)	5,520	-	35,980	31,067
	Year 1	18,400	9,972	5,520	22,852	368	23,220	41,788	(16,260)	11,040	(368)	38,200	31,067
	Year 2	18,400	9,972	5,520	22,852	552	23,404	32,516	(12,652)	16,560	(920)	35,504	31,067
	Year 3	18,400	9,972	5,520	22,852	736	23,588	23,044	(8,966)	22,080	(1,656)	34,502	31,067
	Year 4	18,400	9,972	5,520	22,852	920	23,772	13,672	(5,320)	27,600	(2,576)	33,376	31,067
Y	Year 5	21,860	-	6,558	15,302	1,139	16,441	10,800	(4,202)	34,158	(3,715)	37,041	23,471
	Year 6	21,860	-	6,558	15,302	1,357	16,659	37,440	(14,568)	40,716	(5,072)	58,516	23,471
	Year 7	21,860	-	6,558	15,302	1,576	16,878	65,580	(25,517)	47,274	(6,648)	80,689	23,471
	Year 8	21,860	-	6,558	15,302	1,794	17,096	95,120	(37,011)	53,832	(8,442)	103,499	23,471
	Year 9	21,860	-	6,558	15,302	2,013	17,315	125,860	(48,972)	60,390	(10,455)	126,823	23,471
	Year 10												
	Total (Yr 1-10)	**201,300**	**39,888**	**54,870**	**167,918**	**10,455**	**178,373**						**241,623**
	NPV Year 1	**126,832**	**32,306**	**35,954**	**116,199**	**6,261**	**122,460**						**165,323**

(P1) Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2) Initial Ending Prepaid Pension Asset/5
(P3) (P1) * % transferred to plant
(P4) (P1) + (P2) - (P3)
(P5) (P9)/30 yr. life of plant
(P6) (P4) + (P5)
(P7) (I) + (K) + (M)
(P8) (P6) * composite income tax rate
(P9) prior (P9) + (P8)
(P10) prior (P10) + (P4)
(P11) (P6) + (P7) + (P9) + (P10)
(P) (p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

HECO
MRC Funding Policy
Less Favorable Economic Scenario

Rate Year	Description	TY Pension xp before Trar	TY Amort in RR	Transferred to Plant	Total Pension Exp after Trans	Dep Exp on on Trans to Plant	Total Expense	Pension in RB	Def Tax on Pension in RE	Cum Trans to Plant	Accum Dep on Trans to Pla	Total Rate Base	Rev Req
		(P1)	(P2)	(P3)	(P4)	(P5)	(P6)	(P7)	(P8)	(P9)	(P10)	(P11)	(P)
								68,260	(26,560)			41,700	
Y	Initial	18,400	9,972	5,520	22,852		22,852	49,860	(19,400)	5,520	-	35,980	31,067
	Year 1	18,400	9,972	5,520	22,852	368	23,220	21,488	(8,361)	11,040	(368)	23,799	31,067
	Year 2	18,400	9,972	5,520	22,852	552	23,404	5,516	(2,146)	16,560	(920)	19,010	31,067
	Year 3	18,400	9,972	5,520	22,852	736	23,588	20,544	(7,994)	22,080	(1,656)	32,974	31,067
	Year 4	18,400	9,972	5,520	22,852	920	23,772	37,072	(14,425)	27,600	(2,576)	47,671	31,067
Y	Year 5	30,000	-	9,000	21,000	1,220	22,220	55,000	(21,400)	36,600	(3,796)	66,404	33,178
	Year 6	30,000	-	9,000	21,000	1,520	22,520	72,600	(28,248)	45,600	(5,316)	84,636	33,178
	Year 7	30,000	-	9,000	21,000	1,820	22,820	91,600	(35,641)	54,600	(7,136)	103,423	33,178
	Year 8	30,000	-	9,000	21,000	2,120	23,120	112,000	(43,579)	63,600	(9,256)	122,765	33,178
	Year 9	30,000	-	9,000	21,000	2,420	23,420	108,800	(42,334)	72,600	(11,676)	127,390	33,178
	Year 10												
	Total (Yr 1-10)	**242,000**	**39,888**	**67,080**	**196,408**	**11,676**	**208,084**						**290,158**
	NPV Year 1	**147,410**	**32,306**	**42,683**	**131,900**	**6,895**	**138,795**						**192,071**

(P1) Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2) Initial Ending Prepaid Pension Asset/5
(P3) (P1) * % transferred to plant
(P4) (P1) + (P2) - (P3)
(P5) (P9)/30 yr. life of plant
(P6) (P4) + (P5)
(P7) (I) + (K) + (M)
(P8) (P6) * composite income tax rate
(P9) prior (P9) + (P8)
(P10) prior (P10) + (P4)
(P11) (P6) + (P7) + (P9) + (P10)
(P) (p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

HECO
NPPC Funding Policy
More Favorable Economic Scenario

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort In RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on on Trans to Plant (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								68,260	(26,560)			41,700	
Y	Initial	18,400	9,972	5,520	22,852		22,852	49,860	(19,400)	5,520	-	35,980	31,067
	Year 1	18,400	9,972	5,520	22,852	368	23,220	33,188	(12,913)	11,040	(368)	30,947	31,067
	Year 2	18,400	9,972	5,520	22,852	552	23,404	14,916	(5,804)	16,560	(920)	24,752	31,067
	Year 3	18,400	9,972	5,520	22,852	736	23,588	(4,856)	1,889	22,080	(1,656)	17,457	31,067
	Year 4	18,400	9,972	5,520	22,852	920	23,772	(26,328)	10,244	27,600	(2,576)	8,940	31,067
Y	Year 5	-	-	-	-	920	920	(48,200)	18,755	27,600	(3,496)	(5,341)	1,287
	Year 6	-	-	-	-	920	920	(41,900)	16,303	27,600	(4,416)	(2,413)	1,287
	Year 7	-	-	-	-	920	920	(35,400)	13,774	27,600	(5,336)	638	1,287
	Year 8	-	-	-	-	920	920	(29,200)	11,362	27,600	(6,256)	3,506	1,287
	Year 9	-	-	-	-	920	920	(23,400)	9,105	27,600	(7,176)	6,129	1,287
	Year 10												
	Total (Yr 1-10)	**92,000**	**39,888**	**22,080**	**91,408**	**7,176**	**98,584**						**130,703**
	NPV Year 1	**71,570**	**32,306**	**17,883**	**74,034**	**4,557**	**78,591**						**104,195**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/5
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

HECO

MRC Funding Policy

More Favorable Economic Scenario

Rate Year	Description	TY Pension xp before Trar	TY Amort in RR	Transferred to Plant	Total Pension Exp after Trans	Dep Exp on on Trans to Plant	Total Expense	Pension in RB	Def Tax on Pension in RE	Cum Trans to Plant	Accum Dep Trans to Pla	Total Rate Base	Rev Req
		(P1)	(P2)	(P3)	(P4)	(P5)	(P6)	(P7)	(P8)	(P9)	(P10)	(P11)	(P)
								68,260	(26,560)			41,700	
Y	Initial	18,400	9,972	5,520	22,852		22,852	49,860	(19,400)	5,520	-	35,980	31,067
	Year 1	18,400	9,972	5,520	22,852	368	23,220	21,488	(8,361)	11,040	(368)	23,799	31,067
	Year 2	18,400	9,972	5,520	22,852	552	23,404	(6,884)	2,679	16,560	(920)	11,435	31,067
	Year 3	18,400	9,972	5,520	22,852	736	23,588	(35,256)	13,718	22,080	(1,656)	(1,114)	31,067
	Year 4	18,400	9,972	5,520	22,852	920	23,772	(63,628)	24,758	27,600	(2,576)	(13,846)	31,067
Y	Year 5	-	-	-	-	920	920	(92,000)	35,797	27,600	(3,496)	(32,099)	(2,531)
	Year 6	-	-	-	-	920	920	(92,000)	35,797	27,600	(4,416)	(33,019)	(2,531)
	Year 7	-	-	-	-	920	920	(87,800)	34,163	27,600	(5,336)	(31,373)	(2,531)
	Year 8	-	-	-	-	920	920	(79,500)	30,933	27,600	(6,256)	(27,223)	(2,531)
	Year 9	-	-	-	-	920	920	(70,600)	27,470	27,600	(7,176)	(22,706)	(2,531)
	Year 10												
	Total (Yr 1-10)	**92,000**	**39,888**	**22,080**	**91,408**	**7,176**	**98,584**						**111,613**
	NPV Year 1	**71,570**	**32,306**	**17,883**	**74,034**	**4,557**	**78,591**						**93,674**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/5
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes)

HELCO
NPPC Funding Policy
Baseline Economic Assumptions

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on on Trans to Plant (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								15,515	(6,037)			9,478	
Y	Initial	2,744	2,554	823	4,475		4,475	12,771	(4,969)	823	-	8,625	6,306
	Year 1	2,744	2,554	823	4,475	55	4,530	10,973	(4,270)	1,646	(55)	8,295	6,306
	Year 2	2,744	2,554	823	4,475	82	4,557	8,575	(3,337)	2,470	(137)	7,571	6,306
	Year 3	2,744	2,554	823	4,475	110	4,585	5,877	(2,287)	3,293	(247)	6,636	6,306
	Year 4	2,744	2,554	823	4,475	137	4,612	2,979	(1,159)	4,116	(384)	5,552	6,306
Y	Year 5	2,056	-	617	1,439	158	1,597	(219)	85	4,733	(542)	4,057	2,493
	Year 6	2,056	-	617	1,439	178	1,618	(275)	107	5,350	(720)	4,461	2,493
	Year 7	2,056	-	617	1,439	199	1,638	(331)	129	5,966	(919)	4,845	2,493
	Year 8	2,056	-	617	1,439	219	1,659	(387)	151	6,583	(1,139)	5,208	2,493
	Year 9	2,056	-	617	1,439	240	1,679	(443)	172	7,200	(1,379)	5,551	2,493
Y	Year 10	1,900	-	570	1,330	259	1,589	(499)	194	7,770	(1,638)	5,828	2,621
	Total (Yr 1-1	**25,900**	**10,216**	**6,947**	**26,425**	**1,638**	**28,063**						**40,310**
	NPV Year 1	**16,607**	**8,274**	**4,607**	**19,025**	**949**	**19,974**						**28,406**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/5
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11))/2 * composite cost of capital grossed up for taxes}

HELCO
MRC Funding Policy
Baseline Economic Scenario

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on ɔn Trans to Plant (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep n Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								15,515	(6,037)			9,478	
Y	Initial	2,744	2,554	823	4,475		4,475	12,771	(4,969)	823	-	8,625	6,306
	Year 1	2,744	2,554	823	4,475	55	4,530	7,473	(2,908)	1,646	(55)	6,157	6,306
	Year 2	2,744	2,554	823	4,475	82	4,557	2,175	(846)	2,470	(137)	3,661	6,306
	Year 3	2,744	2,554	823	4,475	110	4,585	(3,123)	1,215	3,293	(247)	1,138	6,306
	Year 4	2,744	2,554	823	4,475	137	4,612	(8,421)	3,277	4,116	(384)	(1,413)	6,306
Y	Year 5	1,156	-	347	809	149	958	(9,219)	3,587	4,463	(533)	(1,702)	811
	Year 6	1,156	-	347	809	160	970	(3,975)	1,547	4,810	(693)	1,688	811
	Year 7	1,156	-	347	809	172	981	969	(377)	5,156	(865)	4,883	811
	Year 8	1,156	-	347	809	183	993	2,013	(783)	5,503	(1,049)	5,684	811
	Year 9	1,156	-	347	809	195	1,004	3,457	(1,345)	5,850	(1,244)	6,718	811
Y	Year 10	3,280	-	984	2,296	228	2,524	4,901	(1,907)	6,834	(1,471)	8,357	3,932
	Total (Yr 1-1	**22,780**	**10,216**	**6,011**	**24,241**	**1,471**	**25,713**						**33,211**
	NPV Year 1	**14,867**	**8,274**	**4,038**	**17,697**	**866**	**18,563**						**24,325**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/5
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

HELCO
NPPC Funding Policy
Less Favorable Economic Scenario

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on on Trans to Plant (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								15,515	(6,037)			9,478	
Y	Initial	2,744	2,554	823	4,475		4,475	12,771	(4,969)	823	-	8,625	6,306
	Year 1	2,744	2,554	823	4,475	55	4,530	11,873	(4,620)	1,646	(55)	8,845	6,306
	Year 2	2,744	2,554	823	4,475	82	4,557	10,475	(4,076)	2,470	(137)	8,732	6,306
	Year 3	2,744	2,554	823	4,475	110	4,585	8,877	(3,454)	3,293	(247)	8,469	6,306
	Year 4	2,744	2,554	823	4,475	137	4,612	7,279	(2,832)	4,116	(384)	8,179	6,306
Y	Year 5	4,836	-	1,451	3,385	186	3,571	5,681	(2,210)	5,567	(570)	8,468	5,202
	Year 6	4,836	-	1,451	3,385	234	3,619	4,845	(1,885)	7,018	(804)	9,174	5,202
	Year 7	4,836	-	1,451	3,385	282	3,667	9,809	(3,817)	8,468	(1,086)	13,375	5,202
	Year 8	4,836	-	1,451	3,385	331	3,716	15,773	(6,137)	9,919	(1,417)	18,138	5,202
	Year 9	4,836	-	1,451	3,385	379	3,764	21,937	(8,536)	11,370	(1,796)	22,976	5,202
Y	Year 10	9,060	-	2,718	6,342	470	6,812	28,301	(11,012)	14,088	(2,265)	29,112	11,490
	Total (Yr 1-1	**46,960**	**10,216**	**13,265**	**41,167**	**2,265**	**43,432**						**62,724**
	NPV Year 1	**26,410**	**8,274**	**7,813**	**26,504**	**1,255**	**27,759**						**39,617**

(P1) Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2) Initial Ending Prepaid Pension Asset/5
(P3) (P1) * % transferred to plant
(P4) (P1) + (P2) - (P3)
(P5) (P9)/30 yr. life of plant
(P6) (P4) + (P5)
(P7) (I) + (K) + (M)
(P8) (P6) * composite income tax rate
(P9) prior (P9) + (P8)
(P10) prior (P10) + (P4)
(P11) (P6) + (P7) + (P9) + (P10)
(P) (p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

HELCO
MRC Funding Policy
Less Favorable Economic Scenario

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on on Trans to Plant (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep Trans to Pla (P10)	Total Rate Base (P11)	Rev.Req (P)
								15,515	(6,037)			9,478	
Y	Initial	2,744	2,554	823	4,475		4,475	12,771	(4,969)	823	-	8,625	6,306
	Year 1	2,744	2,554	823	4,475	55	4,530	7,473	(2,908)	1,646	(55)	6,157	6,306
	Year 2	2,744	2,554	823	4,475	82	4,557	2,175	(846)	2,470	(137)	3,661	6,306
	Year 3	2,744	2,554	823	4,475	110	4,585	(3,123)	1,215	3,293	(247)	1,138	6,306
	Year 4	2,744	2,554	823	4,475	137	4,612	(421)	164	4,116	(384)	3,475	6,306
Y	Year 5	4,816	-	1,445	3,371	185	3,557	4,081	(1,588)	5,561	(570)	7,484	4,748
	Year 6	4,816	-	1,445	3,371	234	3,605	9,365	(3,644)	7,006	(803)	11,924	4,748
	Year 7	4,816	-	1,445	3,371	282	3,653	14,849	(5,778)	8,450	(1,085)	16,437	4,748
	Year 8	4,816	-	1,445	3,371	330	3,701	20,533	(7,989)	9,895	(1,415)	21,024	4,748
	Year 9	4,816	-	1,445	3,371	378	3,749	26,417	(10,279)	11,340	(1,793)	25,686	4,748
Y	Year 10	8,540	-	2,562	5,978	463	6,441	27,201	(10,584)	13,902	(2,256)	28,263	11,227
	Total (Yr 1-1	**46,340**	**10,216**	**13,079**	**40,733**	**2,256**	**42,989**						**60,191**
	NPV Year 1	**26,158**	**8,274**	**7,730**	**26,312**	**1,251**	**27,562**						**38,255**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/5
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

HELCO
NPPC Funding Policy
More Favorable Economic Scenario

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on on Trans to Plant (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								15,515	(6,037)			9,478	
Y	Initial	2,744	2,554	823	4,475		4,475	12,771	(4,969)	823	-	8,625	6,306
	Year 1	2,744	2,554	823	4,475	55	4,530	10,173	(3,958)	1,646	(55)	7,806	6,306
	Year 2	2,744	2,554	823	4,475	82	4,557	6,975	(2,714)	2,470	(137)	6,593	6,306
	Year 3	2,744	2,554	823	4,475	110	4,585	3,477	(1,353)	3,293	(247)	5,170	6,306
	Year 4	2,744	2,554	823	4,475	137	4,612	(221)	86	4,116	(384)	3,597	6,306
Y	Year 5	456	-	137	319	142	461	(4,219)	1,642	4,253	(526)	1,149	872
	Year 6	456	-	137	319	146	466	(3,475)	1,352	4,390	(672)	1,594	872
	Year 7	456	-	137	319	151	470	(2,731)	1,063	4,526	(823)	2,035	872
	Year 8	456	-	137	319	155	475	(1,887)	734	4,663	(979)	2,532	872
	Year 9	456	-	137	319	160	479	(1,143)	445	4,800	(1,139)	2,963	872
Y	Year 10	1,000	-	300	700	170	870	(499)	194	5,100	(1,309)	3,487	1,452
	Total (Yr 1-1	**17,000**	**10,216**	**4,277**	**20,195**	**1,309**	**21,504**						**31,036**
	NPV Year 1	**12,214**	**8,274**	**3,171**	**15,672**	**787**	**16,459**						**23,446**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/5
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

HELCO
MRC Funding Policy
More Favorable Economic Scenario

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on on Trans to Plant (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plan (P9)	Accum Dep n Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								15,515	(6,037)			9,478	
Y	Initial	2,744	2,554	823	4,475		4,475	12,771	(4,969)	823	-	8,625	6,306
	Year 1	2,744	2,554	823	4,475	55	4,530	7,473	(2,908)	1,646	(55)	6,157	6,306
	Year 2	2,744	2,554	823	4,475	82	4,557	2,175	(846)	2,470	(137)	3,661	6,306
	Year 3	2,744	2,554	823	4,475	110	4,585	(3,123)	1,215	3,293	(247)	1,138	6,306
	Year 4	2,744	2,554	823	4,475	137	4,612	(8,421)	3,277	4,116	(384)	(1,413)	6,306
Y	Year 5	-	-	-	-	137	137	(13,719)	5,338	4,116	(521)	(4,786)	(327)
	Year 6	-	-	-	-	137	137	(13,719)	5,338	4,116	(659)	(4,924)	(327)
	Year 7	-	-	-	-	137	137	(13,719)	5,338	4,116	(796)	(5,061)	(327)
	Year 8	-	-	-	-	137	137	(12,719)	4,949	4,116	(933)	(4,587)	(327)
	Year 9	-	-	-	-	137	137	(11,419)	4,443	4,116	(1,070)	(3,930)	(327)
Y	Year 10	696	-	209	487	144	631	(10,019)	3,898	4,325	(1,214)	(3,010)	158
	Total (Yr 1-1	**14,416**	**10,216**	**3,502**	**18,386**	**1,214**	**19,601**						**23,747**
	NPV Year 1	**10,943**	**8,274**	**2,755**	**14,703**	**741**	**15,443**						**19,595**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/5
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

MECO
NPPC Funding Policy
Baseline Economic Assumptions

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on on Trans to Plan (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								5,223	(2,032)			3,191	
Y	Initial	3,900	265	1,170	2,995		2,995	1,323	(515)	1,170	-	1,978	3,685
	Year 1	3,900	265	1,170	2,995	78	3,073	658	(256)	2,340	(78)	2,664	3,685
	Year 2	3,900	265	1,170	2,995	117	3,112	(307)	119	3,510	(195)	3,127	3,685
	Year 3	3,900	265	1,170	2,995	156	3,151	(1,472)	573	4,680	(351)	3,430	3,685
	Year 4	3,900	265	1,170	2,995	195	3,190	(2,937)	1,143	5,850	(546)	3,510	3,685
Y	Year 5	1,600	-	480	1,120	211	1,331	(4,502)	1,752	6,330	(757)	2,823	1,949
	Year 6	1,600	-	480	1,120	227	1,347	(3,702)	1,440	6,810	(984)	3,564	1,949
	Year 7	1,600	-	480	1,120	243	1,363	(2,302)	896	7,290	(1,227)	4,657	1,949
	Year 8	1,600	-	480	1,120	259	1,379	(902)	351	7,770	(1,486)	5,733	1,949
	Year 9	1,600	-	480	1,120	275	1,395	698	(272)	8,250	(1,761)	6,915	1,949
	Year 10												
	Total (Yr 1-10	**27,500**	**1,060**	**7,080**	**17,580**	**1,761**	**19,341**						**24,485**
	NPV Year 1	**19,214**	**859**	**5,113**	**12,789**	**1,091**	**13,880**						**17,309**

(P1) Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2) Initial Ending Prepaid Pension Asset/5
(P3) (P1) * % transferred to plant
(P4) (P1) + (P2) - (P3)
(P5) (P9)/30 yr. life of plant
(P6) (P4) + (P5)
(P7) (I) + (K) + (M)
(P8) (P6) * composite income tax rate
(P9) prior (P9) + (P8)
(P10) prior (P10) + (P4)
(P11) (P6) + (P7) + (P9) + (P10)
(P) (p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

MECO
MRC Funding Policy
Baseline Economic Scenario

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on on Trans to Plan (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								5,223	(2,032)			3,191	
Y	Initial	3,900	265	1,170	2,995		2,995	1,323	(515)	1,170	-	1,978	3,685
	Year 1	3,900	265	1,170	2,995	78	3,073	(2,842)	1,106	2,340	(78)	526	3,685
	Year 2	3,900	265	1,170	2,995	117	3,112	(6,007)	2,337	3,510	(195)	(355)	3,685
	Year 3	3,900	265	1,170	2,995	156	3,151	(3,572)	1,390	4,680	(351)	2,147	3,685
	Year 4	3,900	265	1,170	2,995	195	3,190	(1,337)	520	5,850	(546)	4,487	3,685
Y	Year 5	2,660	-	798	1,862	222	2,084	298	(116)	6,648	(768)	6,062	3,100
	Year 6	2,660	-	798	1,862	248	2,110	738	(287)	7,446	(1,016)	6,881	3,100
	Year 7	2,660	-	798	1,862	275	2,137	1,078	(419)	8,244	(1,291)	7,612	3,100
	Year 8	2,660	-	798	1,862	301	2,163	1,518	(591)	9,042	(1,592)	8,377	3,100
	Year 9	2,660	-	798	1,862	328	2,190	2,058	(801)	9,840	(1,920)	9,177	3,100
	Year 10												
	Total (Yr 1-10	**32,800**	**1,060**	**8,670**	**21,290**	**1,920**	**23,210**						**30,240**
	NPV Year 1	**21,894**	**859**	**5,989**	**14,834**	**1,173**	**16,007**						**20,481**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/5
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

MECO
NPPC Funding Policy
Less Favorable Economic Scenario

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on on Trans to Plan (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								5,223	(2,032)			3,191	
Y	Initial	3,900	265	1,170	2,995		2,995	1,323	(515)	1,170	-	1,978	3,685
	Year 1	3,900	265	1,170	2,995	78	3,073	1,558	(606)	2,340	(78)	3,214	3,685
	Year 2	3,900	265	1,170	2,995	117	3,112	1,693	(659)	3,510	(195)	4,349	3,685
	Year 3	3,900	265	1,170	2,995	156	3,151	1,728	(672)	4,680	(351)	5,385	3,685
	Year 4	3,900	265	1,170	2,995	195	3,190	1,763	(686)	5,850	(546)	6,381	3,685
Y	Year 5	5,080	-	1,524	3,556	246	3,802	4,898	(1,906)	7,374	(792)	9,574	5,402
	Year 6	5,080	-	1,524	3,556	297	3,853	9,718	(3,781)	8,898	(1,088)	13,746	5,402
	Year 7	5,080	-	1,524	3,556	347	3,903	14,738	(5,735)	10,422	(1,436)	17,990	5,402
	Year 8	5,080	-	1,524	3,556	398	3,954	20,058	(7,805)	11,946	(1,834)	22,365	5,402
	Year 9	5,080	-	1,524	3,556	449	4,005	25,578	(9,952)	13,470	(2,283)	26,813	5,402
	Year 10												
	Total (Yr 1-10	**44,900**	**1,060**	**12,300**	**29,760**	**2,283**	**32,043**						**41,750**
	NPV Year 1	**28,012**	**859**	**7,990**	**19,502**	**1,362**	**20,863**						**26,824**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/5
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

MECO
MRC Funding Policy
Less Favorable Economic Scenario

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort In RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on n Trans to Plan (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								5,223	(2,032)			3,191	
Y	Initial	3,900	265	1,170	2,995		2,995	1,323	(515)	1,170	-	1,978	3,685
	Year 1	3,900	265	1,170	2,995	78	3,073	(2,842)	1,106	2,340	(78)	526	3,685
	Year 2	3,900	265	1,170	2,995	117	3,112	1,193	(464)	3,510	(195)	4,044	3,685
	Year 3	3,900	265	1,170	2,995	156	3,151	6,028	(2,345)	4,680	(351)	8,012	3,685
	Year 4	3,900	265	1,170	2,995	195	3,190	11,063	(4,305)	5,850	(546)	12,062	3,685
Y	Year 5	6,860	-	2,058	4,802	264	5,066	16,298	(6,342)	7,908	(810)	17,055	7,804
	Year 6	6,860	-	2,058	4,802	332	5,134	19,038	(7,408)	9,966	(1,142)	20,455	7,804
	Year 7	6,860	-	2,058	4,802	401	5,203	21,878	(8,513)	12,024	(1,543)	23,847	7,804
	Year 8	6,860	-	2,058	4,802	469	5,271	20,718	(8,061)	14,082	(2,012)	24,727	7,804
	Year 9	6,860	-	2,058	4,802	538	5,340	20,958	(8,155)	16,140	(2,550)	26,393	7,804
	Year 10												
	Total (Yr 1-10	**53,800**	**1,060**	**14,970**	**35,990**	**2,550**	**38,540**						**53,760**
	NPV Year 1	**32,512**	**859**	**9,461**	**22,935**	**1,501**	**24,436**						**33,443**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/5
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

MECO
NPPC Funding Policy
More Favorable Economic Scenario

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on on Trans to Plan (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								5,223	(2,032)			3,191	
Y	Initial	3,900	265	1,170	2,995		2,995	1,323	(515)	1,170	-	1,978	3,685
	Year 1	3,900	265	1,170	2,995	78	3,073	(242)	94	2,340	(78)	2,114	3,685
	Year 2	3,900	265	1,170	2,995	117	3,112	(2,007)	781	3,510	(195)	2,089	3,685
	Year 3	3,900	265	1,170	2,995	156	3,151	(3,972)	1,545	4,680	(351)	1,902	3,685
	Year 4	3,900	265	1,170	2,995	195	3,190	(6,037)	2,349	5,850	(546)	1,616	3,685
Y	Year 5	360	-	108	252	199	451	(8,202)	3,191	5,958	(745)	203	635
	Year 6	360	-	108	252	202	454	(6,662)	2,592	6,066	(947)	1,049	635
	Year 7	360	-	108	252	206	458	(5,122)	1,993	6,174	(1,153)	1,892	635
	Year 8	360	-	108	252	209	461	(3,682)	1,433	6,282	(1,362)	2,671	635
	Year 9	360	-	108	252	213	465	(2,242)	872	6,390	(1,575)	3,445	635
	Year 10												
	Total (Yr 1-10	**21,300**	**1,060**	**5,220**	**13,240**	**1,575**	**14,815**						**17,915**
	NPV Year 1	**16,080**	**859**	**4,088**	**10,397**	**994**	**11,391**						**13,688**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/5
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

MECO
MRC Funding Policy
More Favorable Economic Scenario

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on on Trans to Plan (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								5,223	(2,032)			3,191	
Y	Initial	3,900	265	1,170	2,995		2,995	1,323	(515)	1,170	-	1,978	3,685
	Year 1	3,900	265	1,170	2,995	78	3,073	(2,842)	1,106	2,340	(78)	526	3,685
	Year 2	3,900	265	1,170	2,995	117	3,112	(7,007)	2,726	3,510	(195)	(966)	3,685
	Year 3	3,900	265	1,170	2,995	156	3,151	(8,572)	3,335	4,680	(351)	(908)	3,685
	Year 4	3,900	265	1,170	2,995	195	3,190	(10,637)	4,139	5,850	(546)	(1,194)	3,685
Y	Year 5	240	-	72	168	197	365	(12,802)	4,981	5,922	(743)	(2,642)	105
	Year 6	240	-	72	168	200	368	(11,042)	4,296	5,994	(943)	(1,695)	105
	Year 7	240	-	72	168	202	370	(9,382)	3,651	6,066	(1,145)	(811)	105
	Year 8	240	-	72	168	205	373	(7,622)	2,966	6,138	(1,350)	132	105
	Year 9	240	-	72	168	207	375	(5,862)	2,281	6,210	(1,557)	1,072	105
	Year 10												
	Total (Yr 1-10	**20,700**	**1,060**	**5,040**	**12,820**	**1,557**	**14,377**						**15,265**
	NPV Year 1	**15,776**	**859**	**3,989**	**10,166**	**985**	**11,151**						**12,228**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/5
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

HECO
NPPC Funding Policy
Baseline Economic Assumptions

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on on Trans to Plan (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								68,260	(26,560)			41,700	
Y	Initial	18,400	4,986	5,520	17,866		17,866	49,860	(19,400)	5,520	-	35,980	25,595
	Year 1	18,400	4,986	5,520	17,866	368	18,234	42,074	(16,371)	11,040	(368)	36,375	25,595
	Year 2	18,400	4,986	5,520	17,866	552	18,418	32,688	(12,719)	16,560	(920)	35,609	25,595
Y	Year 3	10,120	4,986	3,036	12,070	653	12,723	22,002	(8,561)	19,596	(1,573)	31,464	19,133
	Year 4	10,120	4,986	3,036	12,070	754	12,824	18,096	(7,041)	22,632	(2,328)	31,359	19,133
	Year 5	10,120	4,986	3,036	12,070	856	12,926	13,790	(5,366)	25,668	(3,183)	30,909	19,133
Y	Year 6	8,348	4,986	2,504	10,830	939	11,769	14,170	(5,514)	28,172	(4,122)	32,707	17,819
	Year 7	8,348	4,986	2,504	10,830	1,023	11,852	16,522	(6,429)	30,677	(5,145)	35,625	17,819
	Year 8	8,348	4,986	2,504	10,830	1,106	11,936	18,674	(7,266)	33,181	(6,251)	38,338	17,819
Y	Year 9	9,439	4,986	2,832	11,593	1,200	12,794	20,626	(8,026)	36,013	(7,451)	41,162	20,168
	Year 10												
	Total (Yr 1-10)	**120,043**	**44,874**	**30,493**	**116,024**	**7,451**	**123,475**						**182,214**
	NPV Year 1	**82,944**	**29,892**	**21,603**	**80,298**	**4,624**	**84,923**						**124,389**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/10
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

HECO
MRC Funding Policy
Baseline Economic Scenario

Rate Year	Description	TY Pension xp before Trar	TY Amort in RR	Transferred to Plant	Total Pension Exp after Trans	Dep Exp on on Trans to Plan	Total Expense	Pension in RB	Def Tax on Pension in RE	Cum Trans to Plant	Accum Dep Trans to Pla	Total Rate Base	Rev Req
		(P1)	(P2)	(P3)	(P4)	(P5)	(P6)	(P7)	(P8)	(P9)	(P10)	(P11)	(P)
								68,260	(26,560)			41,700	
Y	Initial	18,400	4,986	5,520	17,866		17,866	49,860	(19,400)	5,520	-	35,980	25,595
	Year 1	18,400	4,986	5,520	17,866	368	18,234	26,474	(10,301)	11,040	(368)	26,845	25,595
	Year 2	18,400	4,986	5,520	17,866	552	18,418	3,088	(1,202)	16,560	(920)	17,526	25,595
Y	Year 3	8,160	4,986	2,448	10,698	634	11,332	(4,298)	1,672	19,008	(1,554)	14,829	14,930
	Year 4	8,160	4,986	2,448	10,698	715	11,413	10,956	(4,263)	21,456	(2,269)	25,880	14,930
	Year 5	8,160	4,986	2,448	10,698	797	11,495	17,410	(6,774)	23,904	(3,066)	31,474	14,930
Y	Year 6	12,024	4,986	3,607	13,403	917	14,320	22,550	(8,774)	27,511	(3,983)	37,304	21,017
	Year 7	12,024	4,986	3,607	13,403	1,037	14,440	24,326	(9,465)	31,118	(5,020)	40,959	21,017
	Year 8	12,024	4,986	3,607	13,403	1,158	14,560	27,002	(10,506)	34,726	(6,177)	45,044	21,017
Y	Year 9	13,870	4,986	4,161	14,695	1,296	15,991	30,278	(11,781)	38,887	(7,474)	49,910	24,868
	Year 10												
	Total (Yr 1-10)	**129,622**	**44,874**	**33,367**	**122,729**	**7,474**	**130,203**						**183,899**
	NPV Year 1	**86,533**	**29,892**	**22,776**	**83,037**	**4,608**	**87,645**						**122,860**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/10
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

HECO
NPPC Funding Policy
Less Favorable Economic Scenario

Rate Year	Description	TY Pension xp before Trar	TY Amort In RR	Transferred to Plant	Total Pension Exp after Trans	Dep Exp on on Trans to Plan	Total Expense	Pension in RB	Def Tax on Pension in RE	Cum Trans to Plant	Accum Dep Trans to Pla	Total Rate Base	Rev Req
		(P1)	(P2)	(P3)	(P4)	(P5)	(P6)	(P7)	(P8)	(P9)	(P10)	(P11)	(P)
								68,260	(26,560)			41,700	
Y	Initial	18,400	4,986	5,520	17,866		17,866	49,860	(19,400)	5,520	-	35,980	25,595
	Year 1	18,400	4,986	5,520	17,866	368	18,234	46,774	(18,200)	11,040	(368)	39,246	25,595
	Year 2	18,400	4,986	5,520	17,866	552	18,418	42,488	(16,532)	16,560	(920)	41,596	25,595
Y	Year 3	19,520	4,986	5,856	18,650	747	19,397	38,002	(14,786)	22,416	(1,667)	43,964	27,883
	Year 4	19,520	4,986	5,856	18,650	942	19,592	32,496	(12,644)	28,272	(2,610)	45,514	27,883
	Year 5	19,520	4,986	5,856	18,650	1,138	19,788	33,490	(13,031)	34,128	(3,747)	50,840	27,883
Y	Year 6	27,208	4,986	8,162	24,032	1,410	25,441	62,470	(24,307)	42,290	(5,157)	75,297	37,643
	Year 7	27,208	4,986	8,162	24,032	1,682	25,713	85,262	(33,175)	50,453	(6,839)	95,701	37,643
	Year 8	27,208	4,986	8,162	24,032	1,954	25,985	109,454	(42,588)	58,615	(8,792)	116,688	37,643
Y	Year 9	39,083	4,986	11,725	32,344	2,345	34,689	134,846	(52,468)	70,340	(11,137)	141,581	57,975
	Year 10												
	Total (Yr 1-10)	**234,467**	**44,874**	**64,820**	**196,121**	**11,137**	**207,258**						**305,743**
	NPV Year 1	**142,305**	**29,892**	**41,014**	**125,591**	**6,607**	**132,198**						**193,053**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/10
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

HECO
MRC Funding Policy
Less Favorable Economic Scenario

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on on Trans to Plan (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RET (P8)	Cum rans to Plant (P9)	Accum Dep n Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								68,260	(26,560)			41,700	
Y	Initial	18,400	4,986	5,520	17,866		17,866	49,860	(19,400)	5,520	-	35,980	25,595
	Year 1	18,400	4,986	5,520	17,866	368	18,234	26,474	(10,301)	11,040	(368)	26,845	25,595
	Year 2	18,400	4,986	5,520	17,866	552	18,418	15,488	(6,026)	16,560	(920)	25,102	25,595
Y	Year 3	21,920	4,986	6,576	20,330	771	21,101	35,502	(13,814)	23,136	(1,691)	43,133	28,418
	Year 4	21,920	4,986	6,576	20,330	990	21,320	53,496	(20,815)	29,712	(2,682)	59,711	28,418
	Year 5	21,920	4,986	6,576	20,330	1,210	21,540	72,890	(28,361)	36,288	(3,891)	76,925	28,418
Y	Year 6	32,928	4,986	9,878	28,036	1,539	29,574	98,570	(38,353)	46,166	(5,430)	100,953	46,167
	Year 7	32,928	4,986	9,878	28,036	1,868	29,904	114,642	(44,607)	56,045	(7,298)	118,782	46,167
	Year 8	32,928	4,986	9,878	28,036	2,197	30,233	132,114	(51,405)	65,923	(9,496)	137,136	46,167
Y	Year 9	36,311	4,986	10,893	30,404	2,561	32,964	125,986	(49,021)	76,817	(12,056)	141,725	57,670
	Year 10												
	Total (Yr 1-10)	**256,055**	**44,874**	**71,297**	**211,233**	**12,056**	**223,289**						**332,615**
	NPV Year 1	**154,458**	**29,892**	**44,988**	**134,864**	**7,107**	**141,971**						**208,075**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/10
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

HECO
NPPC Funding Policy
More Favorable Economic Scenario

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on on Trans to Plan (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								68,260	(26,560)			41,700	
Y	Initial	18,400	4,986	5,520	17,866		17,866	49,860	(19,400)	5,520	-	35,980	25,595
	Year 1	18,400	4,986	5,520	17,866	368	18,234	38,174	(14,853)	11,040	(368)	33,993	25,595
	Year 2	18,400	4,986	5,520	17,866	552	18,418	24,888	(9,684)	16,560	(920)	30,844	25,595
Y	Year 3	3,640	4,986	1,092	7,534	588	8,122	10,102	(3,931)	17,652	(1,508)	22,315	13,011
	Year 4	3,640	4,986	1,092	7,534	625	8,159	8,376	(3,259)	18,744	(2,133)	21,728	13,011
	Year 5	3,640	4,986	1,092	7,534	661	8,195	6,250	(2,432)	19,836	(2,794)	20,860	13,011
Y	Year 6	3,096	4,986	929	7,153	692	7,845	8,910	(3,467)	20,765	(3,487)	22,721	11,969
	Year 7	3,096	4,986	929	7,153	723	7,876	12,314	(4,791)	21,694	(4,210)	25,007	11,969
	Year 8	3,096	4,986	929	7,153	754	7,907	15,418	(5,999)	22,622	(4,964)	27,078	11,969
Y	Year 9	4,438	4,986	1,331	8,093	798	8,891	18,122	(7,051)	23,954	(5,762)	29,262	14,100
	Year 10												
	Total (Yr 1-10)	**79,846**	**44,874**	**18,434**	**87,886**	**5,762**	**93,648**						**140,230**
	NPV Year 1	**60,238**	**29,892**	**14,178**	**62,974**	**3,683**	**66,657**						**98,928**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/10
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

HECO
MRC Funding Policy
More Favorable Economic Scenario

Rate Year	Description	TY Pension xp before Trar	TY Amort in RR	Transferred to Plant	Total Pension Exp after Trans	Dep Exp on on Trans to Plan	Total Expense	Pension in RB	Def Tax on Pension in RE	Cum Trans to Plant	Accum Dep Trans to Pla	Total Rate Base	Rev Req
		(P1)	(P2)	(P3)	(P4)	(P5)	(P6)	(P7)	(P8)	(P9)	(P10)	(P11)	(P)
								68,260	(26,560)			41,700	
Y	Initial	18,400	4,986	5,520	17,866		17,866	49,860	(19,400)	5,520	-	35,980	25,595
	Year 1	18,400	4,986	5,520	17,866	368	18,234	26,474	(10,301)	11,040	(368)	26,845	25,595
	Year 2	18,400	4,986	5,520	17,866	552	18,418	3,088	(1,202)	16,560	(920)	17,526	25,595
Y	Year 3	160	4,986	48	5,098	554	5,652	(20,298)	7,898	16,608	(1,474)	2,734	7,764
	Year 4	160	4,986	48	5,098	555	5,653	(25,444)	9,900	16,656	(2,029)	(917)	7,764
	Year 5	160	4,986	48	5,098	557	5,655	(30,590)	11,903	16,704	(2,586)	(4,569)	7,764
Y	Year 6	864	4,986	259	5,591	565	6,156	(30,750)	11,965	16,963	(3,151)	(4,973)	6,021
	Year 7	864	4,986	259	5,591	574	6,165	(27,414)	10,667	17,222	(3,725)	(3,250)	6,021
	Year 8	864	4,986	259	5,591	583	6,174	(19,978)	7,773	17,482	(4,308)	969	6,021
Y	Year 9	7,126	4,986	2,138	9,974	654	10,628	(11,942)	4,647	19,619	(4,962)	7,362	12,307
	Year 10												
	Total (Yr 1-10)	**65,398**	**44,874**	**14,099**	**77,773**	**4,962**	**82,734**						**104,852**
	NPV Year 1	**51,203**	**29,892**	**11,223**	**56,080**	**3,230**	**59,310**						**77,138**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/10
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

HECO
NPPC Funding Policy
Baseline Economic Assumptions

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on n Trans to Plan (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum rans to Plant (P9)	Accum Dep Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								68,260	(26,560)			41,700	
Y	Initial	18,400	4,986	5,520	17,866		17,866	49,860	(19,400)	5,520	-	35,980	25,595
	Year 1	18,400	4,986	5,520	17,866	368	18,234	42,074	(16,371)	11,040	(368)	36,375	25,595
	Year 2	18,400	4,986	5,520	17,866	552	18,418	32,688	(12,719)	16,560	(920)	35,609	25,595
	Year 3	18,400	4,986	5,520	17,866	736	18,602	22,002	(8,561)	22,080	(1,656)	33,865	25,595
	Year 4	18,400	4,986	5,520	17,866	920	18,786	9,816	(3,819)	27,600	(2,576)	31,021	25,595
Y	Year 5	5,260	4,986	1,578	8,668	973	9,641	(2,770)	1,078	29,178	(3,549)	23,937	14,816
	Year 6	5,260	4,986	1,578	8,668	1,025	9,693	2,470	(961)	30,756	(4,574)	27,691	14,816
	Year 7	5,260	4,986	1,578	8,668	1,078	9,746	7,910	(3,078)	32,334	(5,652)	31,515	14,816
	Year 8	5,260	4,986	1,578	8,668	1,130	9,798	13,150	(5,117)	33,912	(6,782)	35,163	14,816
	Year 9	5,260	4,986	1,578	8,668	1,183	9,851	18,190	(7,078)	35,490	(7,965)	38,637	14,816
	Year 10												
	Total (Yr 1-10)	**118,300**	**44,874**	**29,970**	**114,804**	**7,965**	**122,769**						**176,460**
	NPV Year 1	**84,867**	**29,892**	**22,231**	**81,766**	**4,967**	**86,733**						**123,747**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/10
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

HECO
MRC Funding Policy
Baseline Economic Scenario

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on n Trans to Plan (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum rans to Plant (P9)	Accum Dep n Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								68,260	(26,560)			41,700	
Y	Initial	18,400	4,986	5,520	17,866		17,866	49,860	(19,400)	5,520	-	35,980	25,595
	Year 1	18,400	4,986	5,520	17,866	368	18,234	26,474	(10,301)	11,040	(368)	26,845	25,595
	Year 2	18,400	4,986	5,520	17,866	552	18,418	3,088	(1,202)	16,560	(920)	17,526	25,595
	Year 3	18,400	4,986	5,520	17,866	736	18,602	(4,298)	1,672	22,080	(1,656)	17,798	25,595
	Year 4	18,400	4,986	5,520	17,866	920	18,786	716	(279)	27,600	(2,576)	25,461	25,595
Y	Year 5	7,300	4,986	2,190	10,096	993	11,089	(3,070)	1,195	29,790	(3,569)	24,346	16,009
	Year 6	7,300	4,986	2,190	10,096	1,066	11,162	2,930	(1,140)	31,980	(4,635)	29,135	16,009
	Year 7	7,300	4,986	2,190	10,096	1,139	11,235	9,430	(3,669)	34,170	(5,774)	34,157	16,009
	Year 8	7,300	4,986	2,190	10,096	1,212	11,308	16,830	(6,549)	36,360	(6,986)	39,655	16,009
	Year 9	7,300	4,986	2,190	10,096	1,285	11,381	24,830	(9,661)	38,550	(8,271)	45,448	16,009
	Year 10												
	Total (Yr 1-10)	**128,500**	**44,874**	**33,030**	**121,944**	**8,271**	**130,215**						**182,425**
	NPV Year 1	**90,024**	**29,892**	**23,918**	**85,701**	**5,126**	**90,827**						**127,034**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/10
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

HECO
NPPC Funding Policy
Less Favorable Economic Scenario

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on on Trans to Plan (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep n Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								68,260	(26,560)			41,700	
Y	Initial	18,400	4,986	5,520	17,866		17,866	49,860	(19,400)	5,520	-	35,980	25,595
	Year 1	18,400	4,986	5,520	17,866	368	18,234	46,774	(18,200)	11,040	(368)	39,246	25,595
	Year 2	18,400	4,986	5,520	17,866	552	18,418	42,488	(16,532)	16,560	(920)	41,596	25,595
	Year 3	18,400	4,986	5,520	17,866	736	18,602	38,002	(14,786)	22,080	(1,656)	43,640	25,595
	Year 4	18,400	4,986	5,520	17,866	920	18,786	33,616	(13,080)	27,600	(2,576)	45,560	25,595
Y	Year 5	21,860	4,986	6,558	20,288	1,139	21,427	35,730	(13,902)	34,158	(3,715)	52,271	31,056
	Year 6	21,860	4,986	6,558	20,288	1,357	21,645	62,370	(24,268)	40,716	(5,072)	73,746	31,056
	Year 7	21,860	4,986	6,558	20,288	1,576	21,864	90,510	(35,217)	47,274	(6,648)	95,919	31,056
	Year 8	21,860	4,986	6,558	20,288	1,794	22,082	120,050	(46,711)	53,832	(8,442)	118,729	31,056
	Year 9	21,860	4,986	6,558	20,288	2,013	22,301	150,790	(58,672)	60,390	(10,455)	142,053	31,056
	Year 10												
	Total (Yr 1-10)	**201,300**	**44,874**	**54,870**	**172,904**	**10,455**	**183,359**						**257,660**
	NPV Year 1	**126,832**	**29,892**	**35,954**	**113,785**	**6,261**	**120,046**						**168,496**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/10
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

HECO
MRC Funding Policy
Less Favorable Economic Scenario

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on on Trans to Plan (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep n Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								68,260	(26,560)			41,700	
Y	Initial	18,400	4,986	5,520	17,866		17,866	49,860	(19,400)	5,520	-	35,980	25,595
	Year 1	18,400	4,986	5,520	17,866	368	18,234	26,474	(10,301)	11,040	(368)	26,845	25,595
	Year 2	18,400	4,986	5,520	17,866	552	18,418	15,488	(6,026)	16,560	(920)	25,102	25,595
	Year 3	18,400	4,986	5,520	17,866	736	18,602	35,502	(13,814)	22,080	(1,656)	42,112	25,595
	Year 4	18,400	4,986	5,520	17,866	920	18,786	57,016	(22,185)	27,600	(2,576)	59,855	25,595
Y	Year 5	30,000	4,986	9,000	25,986	1,220	27,206	79,930	(31,101)	36,600	(3,796)	81,633	40,763
	Year 6	30,000	4,986	9,000	25,986	1,520	27,506	97,530	(37,949)	45,600	(5,316)	99,865	40,763
	Year 7	30,000	4,986	9,000	25,986	1,820	27,806	116,530	(45,342)	54,600	(7,136)	118,652	40,763
	Year 8	30,000	4,986	9,000	25,986	2,120	28,106	136,930	(53,279)	63,600	(9,256)	137,995	40,763
	Year 9	30,000	4,986	9,000	25,986	2,420	28,406	133,730	(52,034)	72,600	(11,676)	142,620	40,763
	Year 10												
	Total (Yr 1-10)	**242,000**	**44,874**	**67,080**	**201,394**	**11,676**	**213,070**						**306,195**
	NPV Year 1	**147,410**	**29,892**	**42,683**	**129,486**	**6,895**	**138,381**						**195,244**

(P1) Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2) Initial Ending Prepaid Pension Asset/10
(P3) (P1) * % transferred to plant
(P4) (P1) + (P2) - (P3)
(P5) (P9)/30 yr. life of plant
(P6) (P4) + (P5)
(P7) (I) + (K) + (M)
(P8) (P6) * composite income tax rate
(P9) prior (P9) + (P8)
(P10) prior (P10) + (P4)
(P11) (P6) + (P7) + (P9) + (P10)
(P) (p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

HECO
NPPC Funding Policy
More Favorable Economic Scenario

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on on Trans to Plan (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on Pension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								68,260	(26,560)			41,700	
Y	Initial	18,400	4,986	5,520	17,866		17,866	49,860	(19,400)	5,520	-	35,980	25,595
	Year 1	18,400	4,986	5,520	17,866	368	18,234	38,174	(14,853)	11,040	(368)	33,993	25,595
	Year 2	18,400	4,986	5,520	17,866	552	18,418	24,888	(9,684)	16,560	(920)	30,844	25,595
	Year 3	18,400	4,986	5,520	17,866	736	18,602	10,102	(3,931)	22,080	(1,656)	26,595	25,595
	Year 4	18,400	4,986	5,520	17,866	920	18,786	(6,384)	2,484	27,600	(2,576)	21,124	25,595
Y	Year 5	-	4,986	-	4,986	920	5,906	(23,270)	9,054	27,600	(3,496)	9,888	8,872
	Year 6	-	4,986	-	4,986	920	5,906	(16,970)	6,603	27,600	(4,416)	12,817	8,872
	Year 7	-	4,986	-	4,986	920	5,906	(10,470)	4,074	27,600	(5,336)	15,868	8,872
	Year 8	-	4,986	-	4,986	920	5,906	(4,270)	1,661	27,600	(6,256)	18,735	8,872
	Year 9	-	4,986	-	4,986	920	5,906	1,530	(595)	27,600	(7,176)	21,359	8,872
	Year 10												
	Total (Yr 1-10)	**92,000**	**44,874**	**22,080**	**96,394**	**7,176**	**103,570**						**146,740**
	NPV Year 1	**71,570**	**29,892**	**17,883**	**71,620**	**4,557**	**76,177**						**107,368**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
(P2)	Initial Ending Prepaid Pension Asset/10
(P3)	(P1) * % transferred to plant
(P4)	(P1) + (P2) - (P3)
(P5)	(P9)/30 yr. life of plant
(P6)	(P4) + (P5)
(P7)	(I) + (K) + (M)
(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}

HECO
MRC Funding Policy
More Favorable Economic Scenario

Rate Year	Description	TY Pension xp before Trar (P1)	TY Amort in RR (P2)	Transferred to Plant (P3)	Total Pension Exp after Trans (P4)	Dep Exp on ɔn Trans to Plan (P5)	Total Expense (P6)	Pension in RB (P7)	Def Tax on ᴾension in RE (P8)	Cum Trans to Plant (P9)	Accum Dep n Trans to Pla (P10)	Total Rate Base (P11)	Rev Req (P)
								68,260	(26,560)			41,700	
Y	Initial	18,400	4,986	5,520	17,866		17,866	49,860	(19,400)	5,520	-	35,980	25,595
	Year 1	18,400	4,986	5,520	17,866	368	18,234	26,474	(10,301)	11,040	(368)	26,845	25,595
	Year 2	18,400	4,986	5,520	17,866	552	18,418	3,088	(1,202)	16,560	(920)	17,526	25,595
	Year 3	18,400	4,986	5,520	17,866	736	18,602	(20,298)	7,898	22,080	(1,656)	8,024	25,595
	Year 4	18,400	4,986	5,520	17,866	920	18,786	(43,684)	16,997	27,600	(2,576)	(1,663)	25,595
Y	Year 5	-	4,986	-	4,986	920	5,906	(67,070)	26,097	27,600	(3,496)	(16,869)	5,054
	Year 6	-	4,986	-	4,986	920	5,906	(67,070)	26,097	27,600	(4,416)	(17,789)	5,054
	Year 7	-	4,986	-	4,986	920	5,906	(62,870)	24,463	27,600	(5,336)	(16,143)	5,054
	Year 8	-	4,986	-	4,986	920	5,906	(54,570)	21,233	27,600	(6,256)	(11,993)	5,054
	Year 9	-	4,986	-	4,986	920	5,906	(45,670)	17,770	27,600	(7,176)	(7,476)	5,054
	Year 10												
	Total (Yr 1-10)	**92,000**	**44,874**	**22,080**	**96,394**	**7,176**	**103,570**						**127,650**
	NPV Year 1	**71,570**	**29,892**	**17,883**	**71,620**	**4,557**	**76,177**						**96,847**

(P1)	Last test year NPPC (col. E) + 5-Yr amortization of test year ending reg asset (liability) (cols. K + M)
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(P8)	(P6) * composite income tax rate
(P9)	prior (P9) + (P8)
(P10)	prior (P10) + (P4)
(P11)	(P6) + (P7) + (P9) + (P10)
(P)	(p5)/(1-revenue tax rate) + {[(prior (P11) + (P11)]/2 * composite cost of capital grossed up for taxes}